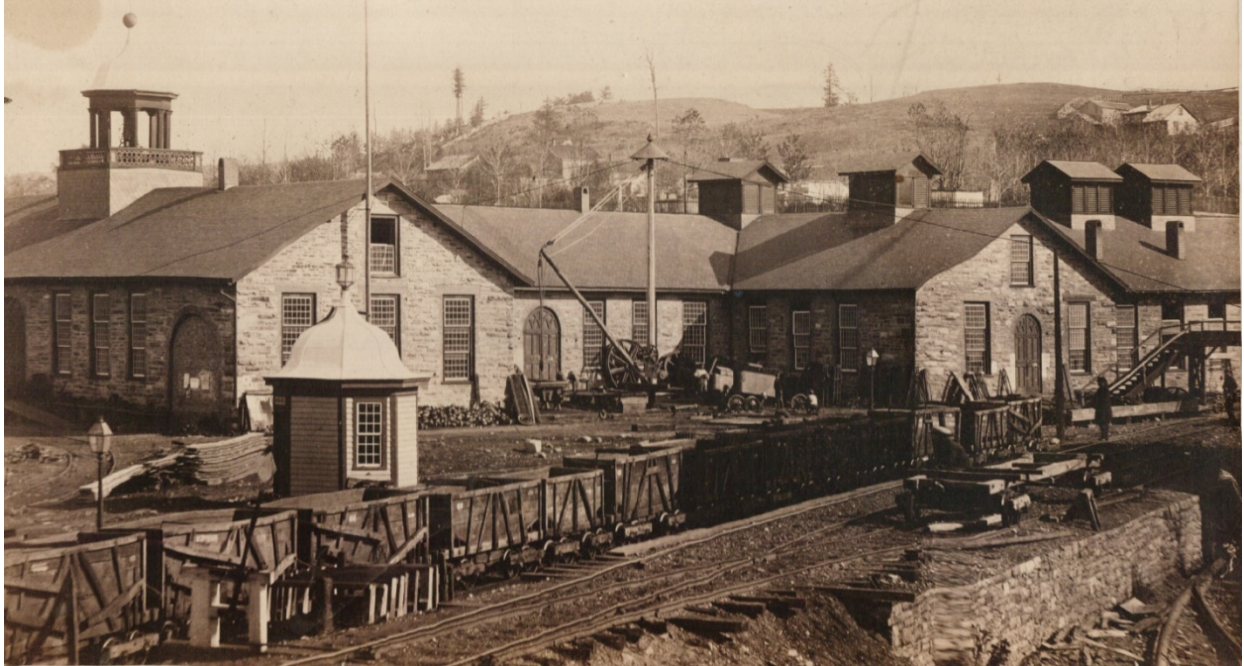


Delaware and Hudson Canal Company Gravity Railroad: 1859 Configuration



MACHINE SHOPS, (CARBONDALE,) DEL. & HUDSON CANAL CO., detail of 1860 photograph by Johnson (Scranton, PA). The original print of this photograph is in the archives of the Wayne County Historical Society, Honesdale, PA.

By

S. Robert Powell, Ph.D.

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A History of the
Delaware and Hudson Canal Company
in 24 Volumes

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I	Gravity Railroad: 1829 Configuration
II	Gravity Railroad: 1845 Configuration
III	Gravity Railroad: 1859 Configuration
IV	Gravity Railroad: 1868 Configuration
V	Gravity Railroad: 1899 Configuration
VI	Waterpower on the Gravity Railroad
VII	Working Horses and Mules on the Gravity Railroad
VIII	Passenger Service on the Gravity Railroad
IX	Farview Park
X	The Steam Line from Carbondale to Scranton (the Valley Road)
XI	The Jefferson Branch of the Erie Railroad (Carbondale to Lanesboro)
XII	Reaching Out: D&H Steam Lines beyond the Lackawanna Valley
XIII	Troubled Times—the 1870s
XIV	Carbondale Stations, Freight Houses, and the Carbondale Yard
XV	Locomotives and Roundhouses
XVI	Rolling Stock: Freight and Passenger
XVII	Anthracite Mining in the Lackawanna Valley in the Nineteenth Century
XVIII	Breakers
XIX	The Stourbridge Lion
XX	The Honesdale Branch of the D&H
XXI	The Anthracite Coal Strike of 1902
XXII	The People: the D&H, the Community
XXIII	The Quality of Life in the Lackawanna Valley in the Nineteenth Century
XXIV	The Birth and First Maturity of Industrial America

Acknowledgements

The 24 volumes in this series could not have been written without thirty years of enthusiastic support and guidance from John V. Buberniak, who shares the present author's interest in the history of the Delaware and Hudson Canal Company's Gravity Railroad and Canal.

It is with great pleasure, therefore, that I here (1) acknowledge the crucial role that John V. Buberniak has played in the writing of these books on the D&H, and (2) express my thanks to him for all that he has done to make these books possible.

Another Gravity Railroad historian to whom sincere thanks are due is the late W. E. Anderson, who was Assistant Engineer for the Delaware and Hudson Canal Company and Chief Engineer of the Delaware and Hudson Company for many years.

In 1895, W. E. Anderson brought into existence a map volume titled:

*Delaware and Hudson Canal Company.
Gravity Railroad / Carbondale to Honesdale, 1895.*

In March 1901, W. E. Anderson created a map volume titled:

*Delaware & Hudson Company's Railroad, Honesdale Branch,
Carbondale to Honesdale. March 1901.*

Using those maps, we have been able to identify and describe the five separate configurations (1829, 1845, 1859, 1868, and 1899) of the D&H rail line from Carbondale to Honesdale in the nineteenth and twentieth centuries.

S. Robert Powell
Carbondale, PA 18407
October 9, 2014

Overview

The industrial revolution in America was born on October 9 1829, in Carbondale, PA, when the first cut of Delaware & Hudson Gravity Railroad coal cars, loaded with mass produced anthracite coal, headed up Plane No. 1 out of Carbondale for Honesdale and to market in New York City.

Those cars, filled with anthracite coal from mines in Carbondale, traveled over 16 miles of railroad tracks, made up of eight inclined planes and three levels, to Honesdale, where the coal was transferred into canal boats and hauled 108 miles, through the D&H Canal, to the Hudson River.

Most of the coal that was sent through the D&H system in the course of the nineteenth century was shipped south on the Hudson River to the New York metropolitan market and to many ports on the Atlantic seaboard, north and south of New York. A large quantity of anthracite coal was also shipped up the Hudson River to Albany, and shipped through the Erie Canal to the American Midwest.

The mining, manufacturing, and transportation system that became operational on that day between the anthracite mines of the Lackawanna Valley and the retail markets for that coal on the eastern seaboard and in the American Midwest was the product of enlightened entrepreneurial, technological, and managerial thought on the part of the officers, managers, directors, and employees of the Delaware and Hudson Canal Company. That system, the first private sector million-dollar enterprise in American history, was, at the same time, the pioneer expression on this continent of mass production, a mode of production that would thereafter characterize industry in America and around the world.

Mass production, the revolutionary engine that made it possible for the D&H to launch its mining, manufacturing, and transportation system in Carbondale on October 9, 1829, and to perpetuate that system well into the 20th century, came into existence when it did and lasted for as long as it did because a body of employees and managers, within the context of a community, of which both groups were a part, chose to work together for their mutual benefit and enrichment, to mass produce and market a commodity, and in so doing to implement the clearly articulated production and marketing objectives of “the company,” the Delaware and Hudson Canal Company.

In this 24-unit work on the D&H,* we will (1) document the history of that mining, manufacturing, and transportation system, with a special focus on the rail lines of the Delaware and Hudson Canal Company in northeastern Pennsylvania, from the opening of the D&H Gravity Railroad in 1829 to the anthracite coal strike of 1902; and (2) demonstrate that the history of that mining, manufacturing, and transportation system, the D. & H. C. Co., from 1829 to 1902, is, at the same time, not only an illustration of eight decades of fine tuning by the D&H of their mass production procedures and techniques but also a full-bodied expression and record, both from the point of view of the D&H and from the point of view of its employees, of the birth, development, and first maturity of the industrial revolution in America.

This is a success story, directed by America's pioneer urban capitalists, and implemented by them and the tens of thousands of men, women, and children who emigrated from Europe to the coal fields of northeastern Pennsylvania in the nineteenth century to work for and with the D&H and to start their lives over again. This is a success story that is important not only within in the context of local, state, and regional history but also within the context of American history. It is a compelling story.

*The present unit focuses on the 1859 configuration of the Gravity Railroad. Each of these 24 units will focus on one aspect of the history of the Delaware and Hudson railroad, from the opening of the Gravity Railroad in 1829 to the anthracite coal strike of 1902. Each unit will be an autonomous entity and published separately.

Preface

In 1859, in order to increase the amount of coal that the D&H was able to send to market and to meet market demands, the D&H not only revised the 1845 configuration of its Gravity Railroad from Carbondale to Honesdale but also extended its Gravity Railroad southward to Valley Junction and beyond.

Who were the people who made a reality the Delaware and Hudson Canal Company's Gravity Railroad in 1859? The primary figure was Charles Pemberton Wurts.

In the period 1843-1852, C. P. Wurts served as the assistant of James Archbald. In 1853, when Archbald moved to Scranton, C. P. Wurts assumed entire charge of the D&H affairs. C. P. Wurts played a key role in the establishment of the 1856-1859 configuration of the roadbed of the D&H Gravity Railroad, the specific characteristics of which are the subject of this volume.

Here are some of the basic facts about Charles Pemberton Wurts (1824-1892):

Charles Pemberton Wurts (nephew and adopted son of John Wurts, third president of the D&H), one of the sons of George and Abigail Pettitt Wurts, was born in 1824 in Montville, NJ, and began working for the D&H at age 19. He married Laura Jay in 1854. She was a granddaughter of Peter Augustus Jay and the great granddaughter of Supreme Court justice and diplomat John Jay. They had 6 children.

On April 20, 1852, C. P. Wurts purchased the property owned by Thomas and Charlotte Sweet on what is called today Lincoln Avenue in Carbondale.

At that time, Andrew Jackson Downing (October 31, 1815–July 28, 1852) was one of the leading architects and landscape designers in America. Downing and his partner Calvert Vaux designed the grounds at the White House and the Smithsonian Institution. President Millard Fillmore commissioned Downing to create a plan that would redeem the Mall from its physical neglect. Downing's objective was to form a national park that would serve as a model for the nation, as an influential example of the "natural style of landscape gardening" and as a "public museum of living trees." Only the area around the Smithsonian was completed due to funding problems. Downing was also an early advocate for the New York Park, which ultimately became Central Park, and the design created by Downing and Frederick Law Olmstead for that park, the Greensward Plan, won, in 1858, the design competition for the new Central Park in New York.

Downing's *Cottage Residences*. . . (written in collaboration with Alexander Jackson Davis, 1842; includes designs and house plans for 28 houses; also the plans for laying out the gardens, orchards, grounds, and specifying the various plants to be used) and *The Architecture of Country Houses*. . . are essentially pattern books for what became known as the "Carpenter Gothic" and the Hudson River Bracketed architectural styles, and were widely known and used by Victorian builders.



Andrew Jackson Downing
(October 31, 1815–July 28, 1852)

The house that C. P. Wurts had built on his 10-acre property on Lincoln Avenue and the grounds surrounding that house are unquestionably full-bodied expressions of Andrew Jackson Downing's thoughts on architecture and landscape gardening, as manifested in his two books on those subjects.

To plant the park surrounding his new residence, C. P. Wurts engaged Alexander Shannon (born in Dumfries, Scotland, July 12, 1825; grew to manhood on the home farm, where he acquired a broad knowledge of landscape design and maintenance) who began working in the railroad department of the Delaware & Hudson Canal Company shortly after he came to America in 1850.

In 1865, Eli E. Hendrick became the owner of the C. P. Wurts house (deed dated June 16, 1865, from Charles P. Wurtz and Laura Wurtz, his wife, to Eli E. Hendrick). Payment for the house and grounds: Eli Hendrick traded C. P. Wurts \$100,000 of the stock of the Great Northern Oil Company for the Wurtz residence and the surrounding park.

Given below is an engraving of the "Residence and Grounds of E. E. Hendrick, Hendrick Avenue, Carbondale, PA" that is given, facing page 443, in *History of Luzerne Lackawanna and Wyoming Counties, PA. with Illustrations and Biographical Sketches of Some of Their Prominent Men and Pioneers*. 1880:

Note the smoke from the smoke stacks at two of the Gravity Railroad engine houses.



Engraving of the Residence and Grounds of E. E. Hendrick, Hendrick Avenue, Carbondale, PA (formerly C. P. Wurts residence), facing page 443, in *History of Luzerne Lackawanna and Wyoming Counties, PA. with Illustrations and Biographical Sketches of Some of Their Prominent Men and Pioneers*. 1880.

1858

OFFICERS of the Delaware & Hudson Canal Company:

President: George Talbot Olyphant: March 15, 1858—May 10, 1869; Vice President: Robert Soutter (previously elected in 1856); Treasurer: Isaac N. Seymour; Secretary: James C. Hartt

1858

MANAGERS of the Delaware & Hudson Canal Company:

John Wurts, Silas Holmes, William S. Harriman, Charles N. Talbot, Lora Nash, Edward J. Woolsey, George T. Olyphant, Robert Ray, Daniel Parish, Samuel B. Shieffelin, Abiel A. Low, Robert L. Kennedy, John David Wolfe.

1861

Birth of James P. Loftus, who became superintendent of mines of the Delaware & Hudson Canal Company:

"**JAMES P. LOFTUS**, superintendent of mines of the Delaware & Hudson Canal Company, was born January 4, 1861, in the city of Carbondale, where he has since resided. His father, Patrick Loftus, who was born in County Mayo, Ireland, in 1820, came to America in young manhood and was one of the first coal miners in the Carbondale fields for the Delaware & Hudson Canal Company. Shortly afterward his parents and brothers and sisters joined him. In 1847 he was one of the miners who experienced the horrors of America's first great mine disaster, when such great loss of life took place. After having been confined for several days he was finally rescued. He lived many years afterward, dying in 1890, having been connected with the mines throughout his entire active life. His wife, who bore the maiden name of Ellen Sweeney, was born in Ireland and died in Carbondale in 1892. / . . . At the age of fifteen he [James P. Loftus] became a driver for the Delaware & Hudson Canal Company and remaining with that firm steadily advanced from one position to another until 1883, since which time he has efficiently and faithfully filled the position of superintendent of mines." *Portrait and Biographical Record of Lackawanna County Pennsylvania*, p. 157.

In the above text about James P. Loftus, we read the following about his father, Patrick Loftus:

"In 1847 he [Patrick] was one of the miners who experienced the horrors of America's first great mine disaster, when such great loss of life took place. After having been confined for several days he was finally rescued." Patrick Loftus is not mentioned in any of the texts about the 1846 mine cave in. In addition, "America's first great mine disaster" took place in 1846 and not 1847. Possibly Patrick Loftus did escape from a cave-in that took place in 1847, but an 1847 cave-in was not America's first great mine disaster. That was in 1846. There is no way of learning how this error (about Patrick Loftus) got into the biographical portrait of James P. Loftus. Family legend, possibly?

1864:

C. P. Wurts appointed Chief Engineer of the D&H in 1853, and remained such until 1865.

The office of General Superintendent created:

"The new office of general superintendent was created [in 1864]. This person would supervise all operations, under the direction of the President, all operations from Scranton to Rondout,

including the mining, railroad, canal, and telegraph departments. Thomas Dickson, then the superintendent of the coal department, was promoted to this office and his salary was fixed at \$6,000 a year. R. Manville was appointed superintendent of the railroad in place of C. P. Wurts who previously had held that position (up to 1865)" *COP*, p. 185

Scottish Realism and the Technological Innovations of the D&H in the Nineteenth Century

The technological innovations implemented by the leadership of the D&H in making a reality the several configurations of the Gravity Railroad in the course of the nineteenth century, especially those manifest in the 1829, 1845, and 1859 configurations of the railroad, must be seen in relation to the intellectual portrait of the leadership of the D&H throughout the century.

Considering those leaders as a group, there is a common thread that unites a great many of them all, and that thread is Scotland. A high percentage of those leaders were either Scots by birth or of Scottish descent and subscribed to the common sense philosophy of Scottish realism.

Scotland, it must be remembered, in the eighteenth and nineteenth centuries, earned the respect of the rest of the world for its crucial contributions to science, philosophy, literature, education, medicine, commerce, and politics—contributions that have formed and nurtured the modern West ever since. It was, in a word, the Scottish genius that created the basic ideas and institutions of modern life.

That common-sense philosophy, which developed in Scottish academic circles in the closing years of the eighteenth century, was fundamentally optimistic and established the philosophical validity of the fundamental self-evident truths that are now regarded as the basis of the American system. John Knox and the Church of Scotland, for example, laid the foundation for our modern idea of democracy. The Scottish Enlightenment, it can be successfully argued, helped to inspire both the American Revolution and the U.S. Constitution.

The Scottish approach was a straightforward and sensible method of looking at life and considering its problems. This common-sense philosophy held that common sense provided a dependable means of knowledge, that common-sense beliefs are within the reach of common-sense understanding, that man's intuition was reliable, and that those whose nature was good and benevolent must be trusted with power and take part in the government of themselves. It was well suited to the prevailing ideals of American culture and it swept American intellectual circles in the nineteenth century. It was democratic and anti-elitist. It provided a firm foundation for a scientific approach to reality. In a nation born during the Enlightenment, the reverence for science as the way to understand all aspects of reality was nearly unbounded.

Speaking of the Scottish approach, Russel Blaine Nye, in *Society and Culture in America 1830-1860*, says: "The Scottish approach became the quasi-official philosophy of nineteenth-century America, generally accepted as the proper way to understand, direct, and control man's thoughts and actions. . . Few educated Americans, in the generations between 1790 and 1870, were not

familiar with the concepts of the Scottish school. Its concepts, taught year by year to successive generations of college students, were a major influence in the development of American thought throughout the nineteenth century."

The Scots were a valuable addition to a developing world. Their past experience of working in the harsh conditions of rural Scotland, combined with their hard-working Presbyterian upbringing, made them an ideal people to help build America in its formative years.

In the biographical portrait of John Hosie, a Scot, that is given in *1880* (p. 438J) we read: "Of the various nationalities which have become united in the New World and which make up the American people no nation has contributed a more sturdy or better element than has Scotland. Wherever, almost without exception, a son of Scotia is found you may be certain of finding an honest and useful citizen and to no one of their number will the remark apply more fittingly than to the man [John Hosie] whose name stands at the head of this sketch."

By the 1860s, the Scottish approach had become the recognized standard of behavior of mainstream American thought and action which, of course, made it more or less invisible, even though it was unmistakably there.

Not surprisingly, the Scottish approach—a scientific/problem solving approach to considering life's problems—is the style of thought and action that characterizes what is generally regarded as the heroic age of American invention, the three decades from 1830 to 1860.

A large number of the key players in the Delaware and Hudson Canal Company and in Carbondale and the Upper Lackawanna Valley in the nineteenth century were Scottish by birth or of Scottish descent.

What is said of Alexander Shannon in the biographical portrait of his son, John B. Shannon (born in Carbondale of Scottish parentage and ancestry), in *Portrait and Biographical Record of Lackawanna County, Pennsylvania* (pp. 337-39) can be said of virtually all the Scots who came here in the nineteenth century. "He (Alexander Shannon) was one of those sturdy, thrifty Scotchmen, who come to America to better their condition and at the same time make the country better for their having come." [emphasis added]

In Samuel C. Logan's *The Life of Thomas Dickson*, we read (p. 7): "He [Thomas Dickson] was a scion of one of those Presbyterian families which laid the broad foundations of the Scottish civilization and greatness. He inherited a name and a blood which is traceable backward through many generations, and which comes to the surface with conspicuous distinctness in the special times of exigency and of heroic sacrifice for the right, in Scottish history."

Here are some of the remarkable Scots who, in the nineteenth century, came to Carbondale and the Lackawanna Valley—which was "better for their having come" here:

John Winfield Aitken: one of the leading business men of Carbondale, born here, March 4, 1850, the only son of John and Anna (Arnold) Aitken, natives respectively of Glasgow, Scotland, and Rhode Island. Together with his father, he established an iron and brass foundry in Carbondale. The father of J. W. Aitken, John Aitken, erected at the corner of River Street and Salem Avenue, in 1843, the first three story building in Carbondale, wherein agricultural implements and tinware, in connection with his large iron and brass foundry, were manufactured. J. W. Aitken organized the Carbondale Board of Trade in 1886, which gave the city its system of electric lighting, the first plant ever sold by the Westinghouse Company. In 1878, he purchased the Keystone Hotel, corner of Main Street and Salem Avenue, and remodeled it into the Aitken Building, one of the most substantial store and office buildings in Carbondale.

Joseph Alexander: One of the most prosperous business men of Carbondale, having begun his merchant tailoring career in 1853 when he came to Carbondale and purchased the establishment of Lewis Pughe. Joseph Alexander was born, June 26, 1818, in St. Cyrus, Kincardineshire, Scotland, and came to America in 1849. In the portrait of the man in *Portrait and Biographical Record of Lackawanna County, Pennsylvania*, 1897, in which there is a likeness of the man on page 432, we read: "Twice he was burned out, meeting with heavy losses each time. Fortunately he possessed a hopeful temperament, and always seemed to look on the bright side of life. After the great fire of 1866, when he lost heavily, he at once commenced the erection of the brick block building built in Main Street. Many of his warm friends attempted to dissuade him in this great undertaking, but he persisted in his determination, for he had faith in the future of Carbondale. His subsequent success proved that he had looked well into the future, and had made no mistake, for the years that followed were the most prosperous of his life." Three times he returned to Scotland to visit old friends. In 1846, in Golspie, Scotland, he married Christina Ross, who was born in Sutherlandshire, in the highlands of Scotland. The couple made several trips to Scotland with their children in the period 1872-1875. Joseph Alexander died in 1893; his wife, in November 1895.

James Archbald: James Archbald was one of the premier figures in the history of northeastern Pennsylvania in the nineteenth century. Through his mother, MaryAnn Wodrow, he descended from the Wodrow family, originally of England, but later of Renfrewshire, Scotland. His father was James Archbald, son of James Archbald of Knockendon, Ayrshire, Scotland. Following their marriage, on August 4, 1789, James Archbald's parents resided on Little Cumbrae island, part of Buteshire, just off the shores of Ayrshire. There, on March 3, 1793, James Archbald was born. In 1807 the Archbald

family removed to America and settled at Auriesville, Montgomery County, NY, where they purchased a farm. *PABRLCP*, pp. 712-14: "In 1817, when the construction of the Erie Canal was commenced, he [James Archbald] became a contractor and built the portion that passed through his father's farm. John B. Jervis, who was engineer in charge of the work, was so well pleased with that done by the young man that he offered him a position on his engineering corps. Mr. Jervis was given charge of the work on the Delaware & Hudson Canal and in 1825 made his protégé resident engineer in charge of a division. In 1829, when work was commenced at the mines of Carbondale, James Archbald was named superintendent and resident engineer of the Gravity Railroad by John Jervis. On November 27, 1832, James Archbald married Sarah Augusta, the Railroad was revised in 1845 and extended southward to Archbald, James Archbald was the mastermind behind those revisions. In 1851, he was elected the first mayor of Carbondale, holding that office for four successive terms. He died on August 26, 1870, and his earthly remains are interred in the Archbald plot in Dunmore Cemetery.

Alexander Barrowman: "The Barrowman family originated in Scotland. William [the father of Alexander] was born in Glasgow in 1807, and in 1849, with his family, took passage on the sailing vessel, 'Cora Linn,' which anchored in New York, after a voyage of fifty-four days. He then proceeded up the Hudson to Albany, and from there via Erie Canal to Buffalo, a trip that required eight days. Leaving his family in Buffalo, he went west in search of a suitable location. Afterward, however, he decided to go to Blossburg, Pa., and journeying to Elmira by canal, he chanced to meet there James Archbald, chief engineer of the Delaware & Hudson Canal Company. Acting on his advice, he came to Carbondale. . . / For a time William Barrowman was employed as foreman on the gravity road, but afterward took the contract for sinking Pittston shaft No.1 and prospected for coal from Wilkesbarre to Carbondale. He sank the Diamond shaft, the largest in the world at the time, having space for two carriages to go down and two to come up at the same time, besides ten feet of space for the pumps. This was first called the Barrowman shaft, but the name was afterward changed to the Diamond. In all matters connected with the sinking of shafts he was considered an authority. . . In 1865 he was killed by being accidentally thrown from his carriage. . . . Among ten children [of William Barrowman], Alexander Barrowman was the third in order of birth. He was born in Glasgow in 1835 and was about fourteen years of age when the family came to the United States. After attending school for a time in Pittston, he was apprenticed to the carpenter's trade under William Price, now of Hyde Park. Two years later he came from Pittston to Scranton, where he assisted his father for three years. He then began for himself as a stair builder and contractor, and has built the majority of spiral stairs in this locality. He completed a

stairway in the Episcopal Church of Wyoming that others thought could not be done and that is considered the finest work of the kind in the locality. / In August 1862, Mr. Barrowman volunteered in a pontoon train and was one of twelve mechanics in charge of the corps that constructed the pontoon bridge across the Rappahannock River at Chancellorsville." (*Portrait and Biographical Record of Lackawanna County, Pennsylvania*, 1897, pp. 363-64)

S. S. Benedict: editor and publisher of *Carbondale Advance* for 29 years. Born in Walton, Delaware County, NY, March 7, 1816. Teacher, alderman (5 years), member of the Legislature (2 years), school director (25 years), notary public (18 years).

Joseph Birkett: one of the leading citizens of Carbondale in the second half of the nineteenth century. He was born January 19, 1823, in Cumberland, in the north of England. His father, John, and his mother, nee Ruth Cragg, were both of Scotch ancestry, although they lived in Cumberlandshire. On April 4, 1849, Joseph Birkett and his wife, nee Ann Drummond (born in England, of Scotch ancestry, on March 13, 1823; they were married in 1843), arrived in Philadelphia from their native land. On July 6 they reached Carbondale, where Joseph Birkett secured a position in the car shops of the D&H Railroad under Homer Grinnell, working there until 1854. He then went to Gibson for 2 years, working there in carpentry and farming. In 1856 he returned to Carbondale and again worked in the D&H car shops, until 1865, as assistant to Thomas Orchard. In 1865, Joseph Birkett "purchased a tract of land in what is now the thriving northeast part of the city, [where] he opened up coal mines. These he operated for four years and then leased to other parties, preferring to give his attention to the opening and improvement of that part of the city now comprised in the fifth and sixth wards. It is largely due to his efforts that this is now [1897] one of the most desirable residence portions of the city. . . In the building up of the town [of Carbondale] he has been one of the prime movers. Every worthy enterprise has his assistance." (Portrait of the man in *PABRLCP*, pp. 487-488, + photo on p. 486) For two years he was a councilman, and for one year served as mayor of the city of Carbondale. Joseph Birkett's father, John and his grandfather, William, were both agents for the Dickson Manufacturing Company.

David P. Birtley. "During the residence of his parents in Edinburgh, the subject of this article [David P. Birtley] was born January 9, 1835. His early years were passed in that city, Glasgow and Firth, where he was a pupil in private schools and where he worked in a bookbinding establishment. . . Fifteen years old when the family came to America, he [David P. Birtley] soon became a practical miner, and was employed in Schuylkill, Carbon and Luzerne Counties. In May, 1856, he took a position as miner in the old Rockwell mine owned by John Jermyn, and afterward was inside foreman of the von Storch mine about seven years. Resigning this position, he engaged in business about one year, then became foreman at the Dunn mines for Mr. Jermyn and began the sinking of the shaft. Shortly afterward he opened a mine at Priceburg, then became foreman at the Winton mine for the Winton Coal Company, and later was superintendent of the Northwest Colliery at Carbondale for Simpson & Watkins about one year. At present he is engaged with the Delaware & Hudson Canal Company at the Marvine mine." (*Portrait and Biographical Record of Lackawanna County, Pennsylvania*, pp. 479-480.)

Bryce Ronald Blair: born in Glasgow, Scotland on September 21, 1832, died in Carbondale, PA on February 11, 1916 (buried in Maplewood Cemetery). Upon his arrival in America in November, 1852, went to work for his uncle, Frank Blair, and was employed in the construction of the North Branch Canal at Tunkhannock; in 1853 he was engaged on the junction canal, New York, as superintendent of sections 30 and 31. In December, 1868, he was appointed chief engineer of the Jefferson branch of the Erie Railway from Carbondale to Susquehanna. The road was built in 20 months at a cost of \$2,000,000. After 1880, he worked with E. E. Hendrick to look after his interests in the oil regions. He married Emma I. Tubbs, of Shickshinny. They had 9 sons and 2 daughters. Photo of Bryce Blair in *Portrait and Biographical Record of Lackawanna County, Pennsylvania*, 1897, p. 234.

William Boyd: Born in Ayreshire, Scotland, in 1835, was one of Carbondale's best known and most respected citizens. He left his native place, and came direct to Carbondale on July 31st, 1860, and was married in December of the same year to Miss Mary Tait, a niece of the late Wm. N. Monies, also of Ayrshire, who came to this country in company with Mr. Boyd. She died February 25th, 1865. About two years later, Mr. Boyd was married a second time—to Mrs. Morrison, of Jermyn, who at the time filled the position of housekeeper to him. He died in 1887, at the age of 52, after an illness of two years, which was marked by periods of intense suffering. His disease was consumption, complicated with psoas abscess and rheumatism. Interment was in Maplewood Cemetery. He left four children—two, Lizzie and James, being the fruit of his first marriage, and two of the

second. William Boyd was a carpenter by trade, and was employed in the car department of the Delaware and Hudson Canal Company for about twenty-three years, and up to the time he was taken sick, two years before his death. He was an active and prominent member of Cambrian Lodge, No. 58, I. O. O. F., of Carbondale. He was initiated in that Lodge June 21, 1862, and afterwards passed through the chairs. The Lodge attended his funeral in a body. In 1875-6, he served as Common Councilman in Carbondale. In 1879, he was elected Poor Director for the First ward, and re-elected twice without opposition. He was a man of the strictest integrity, and in his official relations discharged his duties with fidelity to the public and in a manner honorable to himself.

Hugh Brown: one of the eleven contractors, under James Archbald's direction, who built the 1829 configuration of the Gravity Railroad. He was born in 1776 in Ayr, Scotland, and emigrated, at age 44, to the United States about 1820, and established a farm in the Mohawk River Valley, where, other families from Ayrshire, Scotland had earlier settled, among them the parents of James Archbald and family, who settled there in 1805. Brown's wife, nee Mary Gibson (1798-1877), and their children born in Scotland joined Brown in America in 1823. Surely the Brown family and the Archbald family knew each other in what must have been a Scottish community in the Mohawk River Valley. Hugh Brown was employed as an overseer by the Delaware & Hudson Canal Company in the period 1827-1830. Brown surely must have remained here, after 1830, working continuously for the D&H. We know that in March 1833, he was still working and was living in Carbondale on April 4, 1838. Hugh Brown was living in Carbondale in June, 1840. Hugh Brown was living in Carbondale on April 14, 1841. Hugh Brown's certificate of naturalization, among the Brown-Gibson papers, is dated, Bethany, PA, September 3, 1841. What was the Hugh Brown/James Archbald connection: They were both Scots (Brown was born in 1776, James Archbald in 1793, both in Ayrshire, Scotland). If they did not know each other in Scotland, they surely did when both lived in the Mohawk River valley in upstate New York. When James Archbald came to Carbondale to work for the D&H, he knew that there would be a need here for his Scottish colleagues to work for the company—in administrative capacities. Hugh Brown, therefore, came to Carbondale and worked for the D&H.

George Burrell: "GEORGE BURRELL was born in Dundee, Scotland, in 1843; came to Carbondale in the spring of 1850; entered the service of the Delaware and Hudson Canal Company in 1859; was made foreman of general carpenter work in 1865, and became master of bridges and buildings in 1875. He married Lucy J. Bair, of Carbondale." (1880, p. 452A)

Alexander Bryden: Named Mine Foreman in March 1843 (to take the place of Archibald Law, who was permanently disabled by a fall of roof and coal); hero of 1846 mine cave in, about which much is reported in the volume in this series on the 1845 Configuration of the D. & H. Gravity Railroad.

John Campbell: "JOHN CAMPBELL, born in Scotland, March 1st, 1805, served seven years in the British army, after which he settled in Carbondale. He has been mine boss since 1854, and served as school director six years and as overseer of poor for five years. He married Miss Mary Fairchild, of Hanover township, Luzerne county." (1880, p. 452 B)

James Clarkson: Superintendent of the D&H Mines. Born in Hermonch, Scotland, married Margaret Gill of Hermonch. In 1830, emigrated to America and settled eventually in Carbondale where he established a partnership with Peter Campbell. This partnership was hired by the D&H as contractors. Clarkson was soon appointed superintendent of mines of the company, which position he held for 30 years. He died on November 10, 1876. (nice line engraving of James Clarkson on page 239 of 1880)

Judge Alfred Dart: Attorney, born in Bolton, CT, July 14, 1810; died August 14, 1883. "In 1829 he left his native State and settled in Dundaff, Susquehanna county. . . The place was the principal business centre of northeastern Pennsylvania, and was of far more importance than Carbondale, which, in the course of a score of years, outstripped the Susquehanna county village. In 1830 he was married at Dundaff to Miss Ann Cone, who was a native of Ulster county, N. Y. Four children were born to them, namely, Mrs. James Thompson, and Miss Hattie Dart, of Carbondale, and Hon. Alfred Dart, ex-District Attorney of Luzerne county, and L. C. Dart, ex-County Commissioner of the same county. Judge Dart lived in Dundaff until 1845, when he moved to Carbondale, which city was his home during the remainder of his life. He ranked as Colonel in the State militia thirty years ago. / In April, 1861, Judge Dart raised and commanded the first company of volunteers that went from this section of the State. The company was attached to the Twenty-fifth Pennsylvania volunteers, a regiment which is now known as the First Defenders, Colonel Coke commanding. He and his company remained for three months in the service, when they were discharged. He immediately returned to Carbondale and began to raise another company of volunteers. There was then a nest of secession sympathizers in the town, some of whom undertook to interfere with his patriotic efforts. His recruiting office was in the second story of the building on the southwest corner of North Main and Salem streets, where a crowd attempted to mob him on a pleasant summer day in 1861. He never knew what fear was, and, when the

disturbers had been thoroughly whipped by Mr. Dart and his little party of assistants, they looked upon him with awe. In the fracas he lost some of his front teeth, but he cleaned out the mob, some of whom afterward joined his company. In a few days he had recruited his company, which was known as Company M, Fourth Pennsylvania Cavalry. He was wounded at the battle of Antietam. In 1863 he went to Fort Leavenworth, Kansas, where he organized and commanded a regiment of Sioux Indians. After his return to Carbondale he resumed the practice of law which he had begun there in 1845, and which he continued to do until a few years ago. / . . . Judge Dart was an active Republican, and was one of the organizers of the party in Luzerne county... In 1873 he was elected Judge of the Mayor's Court of the city of Carbondale. He held that office until 1874, when the Court was abolished by the new Constitution of the State. / He descended from fighting stock, his father and seven of his father's brothers having served in the Revolutionary war. He was remarkable for his independence of thought and expression, and for his contempt for what people call policy. He hated shams and cant, and liked the society of those who had opinions and independence enough to express them. His own intense physical sufferings were known to no one but himself, and, although he was not a reticent man, he believed in saying little about those things which were of no interest to his listeners. He was a patriot through and through, and no one could be braver than he. He was generous-handed, kind hearted, and a sincere friend of his worthy fellowmen." ("DEATH OF JUDGE DART. A Sketch of His Life," *Carbondale Advance*, August 18, 1883, p. 3; given hereinbelow) When the soldiers' monument in Carbondale's Memorial Park was dedicated, on June 6, 1885, it was Colonel Dart, Esq. who delivered the dedicatory oration, a copy of which is in the archives of the Carbondale Historical Society.

The Dickson Family: James and Elizabeth Dickson and their children: Thomas, Isabella, Mary, John A., and George L. In the portrait of George Linen Dickson in *PABRLCP*, pp. 456-57, we read: "The Dickson family originated in Scotland, and is of that sturdy type, honorable and energetic, characteristic of the nation. . . / A most estimable woman [Elizabeth Dickson], possessing Scotch traits of honesty, modesty, frugality and energy, she gave to her children the most careful training that they might 'act well their part in life.' "

James and Elizabeth Dickson: the parents of Thomas Dickson, the president of the Delaware and Hudson Canal Company, 1869-1884. James was the son of Thomas Dickson, "who served more than twenty years in the British army, was a sergeant in the Ninety-second Regiment of Highlanders, and bore a distinguished part in the battle of Waterloo, receiving a medal for gallantry in that engagement. At different times he received four other medals for meritorious action." James was born in Scotland and was an intimate

friend of Sir Walter Scott. "In 1832, the cholera breaking out in Scotland, he and other families in the neighborhood, emigrated to Canada. . . After two years in Toronto, the family came to Pennsylvania and settled in the iron and coal districts at Dundaff, six miles above Carbondale, residing on a farm while the father worked at his trade in New York. In 1836 he secured employment with the Delaware and Hudson Canal Company at Carbondale, and was general master mechanic [superintendent of the machine shop] until his death in 1880. / . . Elizabeth was born in Berwickshire, Scotland, and died in May, 1866. She was a relative of James Hogg, the Scottish poet. . ."

Thomas Dickson: Born Landerdale, Scotland, March 26, 1824, died July 31, 1884. January 1, 1860: the coal and railroad departments of the D&H Canal Company separated and Thomas Dickson (age 36) was appointed superintendent of the coal department; he served in that capacity until 1864, when he was named to head the newly created office of General Superintendent of the entire works and served in that capacity for 7 years; named Vice President of the Delaware and Hudson Canal Company in 1867; named President in the summer of 1869 and served as president for 15 years (1869-1884).

James Douglas: In 1852 (at age 73) accepted the position of weighmaster at one of the mines of the D. & H. C. Co.; served for 18 years; retired at age 86.

Thomas Gillespie: Born in Scotland in 1805 and came to Carbondale in 1833, where he died on October 26, 1867. He was described by Eleanor Pritchard Jones as "a prince of a man; Carbondale's first broker." As a young man, he established a mercantile business in Carbondale with H. S. Pierce, under the firm name of Gillespie & Pierce, the success of which not only surpassed that of any other firm in Carbondale but also of any in Northern Pennsylvania. Together with James Stott, Gillespie and Pierce established the firm of Gillespie Pierce & Co. and engaged in the business of private banking with great success. The banking office of Gillespie, Pierce & Co. became, in 1864 the First National Bank of Carbondale, of which Thomas Gillespie was a director. He was a pillar of the First Presbyterian Church of Carbondale. He was a member of the Select Council, when Carbondale became an incorporated city on March 15, 1851. Such was his success in life that when he died, at the age of 63 years, Thomas Gillespie left \$300,000 to the families of his two surviving and one deceased brother and two sisters, numbering in all about 40 heirs.

John Hosie: mine superintendent: born in Sterlingshire, Scotland, June 2, 1812. In 1843 he engaged, under James Archbald, in the management of the Delaware and Hudson Canal Company's railroad from Carbondale to Honesdale, and during the two years he was thus employed he repaired the masonry on the company's canal. In 1845 he accepted the

position of assistant superintendent, under Archbald, of the Delaware and Hudson coal mines at Carbondale. On November 12, 1845 he married Julia A. Beattys of Waymart. John Hosie was trapped in the 1846 mine cave-in but escaped. John Hosie died November 4, 1879.

Adam Hunter: "ADAM HUNTER, engineer at engine No. 5, was born in Scotland, in 1834, and married Mary Lynce of Ireland. He was a sailor about nineteen years, and came to Carbondale in 1869 and has since [up to 1880 at least] been in the employ of the D. & H. Canal Company, formerly at engine No. 3." (1880, p. 452C)

John Bloomfield Jervis: named Chief Engineer, March 14, 1827, served until 1829. John Jervis designed the Gravity Railroad that opened on October 9, 1829.

Hugh Jones: "HUGH JONES, a native of Ayrshire, Scotland, came in 1866 to Pittston, removing to Olyphant two years later to work in the Delaware and Hudson mines. There he worked until 1876, when he was appointed inside foreman of the White Oak colliery. He married in 1869 Margaret Pettigrew, of Olyphant, and has three children." (1880, p. 464C):

Archibald Law: mine superintendent: under the direction of Archibald Law the D&H opened the first deep underground anthracite shaft mine in America in June 1831.

Thomas Law: "THOMAS LAW, mine foreman, was born March 20th, 1847, in Scotland, and came to this country when a child, his parents settling in Dunmore, Pa. His first work in connection with mining was acting as weighmaster for the Pennsylvania Coal Company at Dunmore. Coming to Archbald in 1860 he served as weighmaster at the White Oak colliery until 1870, when he was promoted to his present position, that of outside foreman. Mr. Law married (August 17th, 1876) Frances, daughter of A. V. Gerbig, of Archbald, and has two children. He has served as president of the borough council, and has been its secretary since 1877." (1880, p. 464C):

John Love: "The maternal grandfather of Robert Reaves (*PABRLCP*, pp. 1068-69), John Love, was born in Scotland and bought his family here at the same time with John Dickson. Settling in Carbondale, he became a pattern maker for the Delaware and Hudson Company and continued in that position until his death." Robert Reaves was the son of P. A. and Mary (Love) Reaves. "His father . . . was a son of Peter Reaves, a native of Ayrshire, Scotland, who came to America in young manhood. . . By his marriage to

Louise, sister of James Archbald, he had a son, P. A., who came to Carbondale in youth and learned the machinist's trade in the Delaware & Hudson shops with Thomas, George and John Dickson. Afterward he was appointed master mechanic of the Pennsylvania Coal Company with headquarters at Pittston."

James H. McAlpine: First Superintendent of the D&H Machine Shop.

Silas A. McMullen: The McMullen family is of sturdy Scotch ancestry. March 1, 1870, named Assistant Superintendent of the Pennsylvania Division of the Delaware and Hudson railroad. Born in Clinton Township, October 9, 1836. Since 1869 he has filled his present position and under his supervision the locomotive road from Scranton to Carbondale was built. Portrait in *PABRLCP*, pp. 465-66, + photo p. 464.

Silas K. McMullen: born in 1809 in Pleasant Mount; as early as 1827 was in the employ of the Delaware & Hudson Canal Company in the construction of the original Gravity Railroad. Was killed accidentally while running a stationary engine on the Gravity Railroad. "Born October 9, 1836, in Clinton, Wayne County, Silas McMullen came to Carbondale on February 22, 1869, and on March 1, was named assistant superintendent of the Pennsylvania Division of the Delaware & Hudson Canal Company's Division railroad. He was married to Louisa A. Hubbard of Wayne County." Jerry Palko notes

William J. McMullen: master of the trade and transportation department of the Delaware and Hudson Canal Company's railroad; born March 12, 1844 in Clinton Township. "Honesdale Branch Trainmaster William McMullen was instantly killed last evening about half past five o'clock. Mr. McMullen was returning from a tour of inspection over the branch on engine No. 53 and at Panther Bluff got off to throw a switch. He signaled engineer Colvin to back up and in crossing the track in front of the moving engine the tender struck him. No one saw the accident, the crew not knowing that it occurred until his body was seen under the locomotive. Deceased was born in Wayne county 56 years ago and has been in the service of the Delaware and Hudson company continuously since he was sixteen years of age. He was first employed on the coal dump in Waymart and finally through strict attention to business and his unusual capacity for railroading rose to the position of trainmaster of the Gravity railroad system, a position which he held for twenty years. Under his personal supervision the track between Farview and Waymart, replacing the system of planes, was laid and the changing of the gauge on the entire line which will be remembered as taking place about a year ago, was in a measure under his jurisdiction and was completed in a few days, a feat in railroading unusual as it was great. He had charge of all the excursion business on the old gravity road and personally looked after it."

John Gillespie Murray

Gentleman, tea merchant, bibliophile. Born in Scotland in 1825 in Dumfries shire, and died in New York City on May 10, 1854. He was the son of Jeanette Hume Gillespie (Murray) (Locke), who was the mother of Margaret Gillespie Locke, the wife of James Russell. He was a charter member of Carbondale Lodge No. 249, Free and Accepted Masons, which was formally constituted on September 11, 1850. No less than 31 books that were in his library are now in the collection of the Russell Homestead, Carbondale.

Col. William N. Monies: Born New Dailly, Ayrshire, Scotland, May 10, 1827, died January 10, 1881. Elected Poor Director of Carbondale, 1858. Captain of Company B, 136th Regiment PA Volunteers, Col. 30th Regiment PA Volunteers. Mayor of Scranton, 1869. Appointed first County Treasurer of Lackawanna County.

Andrew Nicol: in *PABRLCP*, pp. 678-79, we read: "ANDREW NICOL has seen the longest service with the Delaware & Hudson Coal Company of any man in their employ, having held one position for the past forty-five years. . . / Born in the lowlands of Scotland, in the parish of New Daily, Ayr, August 20, 1817, Mr. Nicol is a son of John, of the same locality, and grandson of David Nicol, who was a shepherd." In 1851 Mr. Nicol came to America, settling eventually in Carbondale, where he knew a mine foreman, a Mr. Bryden. "This gentleman introduced him to the superintendent and Mr. Nicol was given a position as a surveyor in the Delaware & Hudson mines, continuing there twenty years. . . In 1870 a law providing for the inspection of the anthracite fields was passed and to the surprise of our subject he has appointed inspector of mines by Gov. John W. Gary. The company who had so long depended upon his services did not want to let him go, but finally gave him leave of absence for six months, at the end of which time he returned to his old work. / In Glasgow, Mr. Nicol married Helen Brown, who was born in Maybole, County Ayr, Scotland." They were the parents of five children. "Andrew, the only son, lost his life through his heroism. He was about forty years of age at the time of his death and was his father's assistant as mining engineer in the Olyphant mine. In September, 1889, a fire occurred in the mine and in his efforts to extinguish the flames and save the other men he was himself overcome and so badly burned that he lived but three weeks. He carried two men half a mile to the shaft and they were rescued, while he, being the last one to leave, had to face death. He left a wife and three children to mourn his loss." Andrew Nicol, the father, "required four assistants to carry out his plans in the mines. He continued his general supervision of details until January 1, 1897; on that date, in consideration of his long and valuable services with the company, he was placed by them upon the retired list with a pension. . . He has never lived in a rented house in this country, as he bought one the first week he was in Carbondale." Andrew Nicol was killed in an explosion at the Eddy Creek mine in Olyphant on September 14, 1889. See page 316 herein for the accident report from *The New-York Times* of September 15, 1889 on the death of Andrew Nicol.

James Nicol: "JAMES NICOL, mine foreman, is a native of Scotland, and came to America when nineteen years old (a brother of Andrew Nicol, see above). He has been engaged in railroad contracting and mining since 1852. He became inside superintendent of Eddy Brook colliery in 1877. He married Annie Hunter, of Grassy Island, and has four children." He was also inside foreman at the White Oak mine, Archbald. (1880, p. 470C)

Roswell P. Patterson: R. P. Patterson & Sons wholesale grocery house, one of the most successful and flourishing concerns in the city of Carbondale, established in 1890 on Dundaff Street in Carbondale. Roswell P. Patterson, a son of Daniel Patterson, a native of Glasgow, Scotland, was born April 6, 1822. In 1848, he married Angeline, daughter of Leonard Starkweather, of Waymart. They were the parents of 4 sons and 4 daughters. (Their daughter, Isabel, a twin, married Charles McMullen of Scranton, who was a brother of S. A. and W. J. McMullen, both of whom held responsible positions with the D. & H.) In the period 1843-87, he was in the hotel business in Prompton, Honesdale, Waymart, and Herrick Center. In the portrait of the man in *Portrait and Biographical Record of Lackawanna County, Pennsylvania*, 1897, pp. 417-418, we read: "His success is all the more commendable when we consider that he started in life without means and has worked his way, unaided, to a position among the substantial men of his community."

George Pettigrew: "GEORGE PETTIGREW, miner, a native of Edinburg, Scotland, came to America in 1850, and to this town [Olyphant] in 1856. In 1863 he married Catharine Matilda Davis, a native of Wales, and he has two children. In 1880 he was elected burgess of Olyphant." (1880, p. 470D)

Finley Ross: He was assistant superintendent of the coal department, Delaware & Hudson Canal Company, and a prominent Republican of Scranton. He was born in Ayrshire, Scotland, in 1839, the son of Nathaniel and Janet (Frazier) Ross, also of that shire. In 1860 he came to Scranton and engaged as a machinist with the Delaware & Hudson Canal Company, becoming inside foreman at Leggett's Creek shaft. Later he was traveling assistant superintendent, then foreman, and in 1893 was promoted to be assistant superintendent of the coal department, Delaware & Hudson Canal Company, which position he has since held.

James and Margaret (Locke) Russell: James Russell was a farmer, dairyman, and coal dealer. He served as Justice of the Peace of Fell Township from 1851 to 1872. He and his wife, nee Margaret Locke, were both natives of Scotland (he came to America in the fall of 1840; she, in April 1847). They were married in January, 1851. In the countryside around Carbondale in the nineteenth century and well into the twentieth century were a large

number of farms that provided a wide array of foodstuffs for Carbondale and the industrialized Lackawanna Valley. Among those farms was the one established by James and Margaret Russell in Fell Township. That farm became, in 1962, the Homestead Golf Course.

Alexander Shannon: born in Dumfries, Scotland, July 12, 1825, and grew to manhood on the home farm, where he acquired a broad knowledge of landscape design and maintenance. He Came to America in 1850 and after a short time secured work in the railroad department of the Delaware & Hudson Canal Company. Working for the Wurts Brothers, he designed and planted Hendrick Park, Carbondale. From 1870 to 1893, he worked for Van Bergen company. Alexander Shannon's son, William, born May 10, 1863, worked for several years in the freight department of the Delaware & Hudson Canal Company. Together with his brother, John B. Shannon (photo on page 336 the biographical portrait of John B. Shannon in *Portrait and Biographical Record of Lackawanna County, Pennsylvania*, 1897, pp. 337-39), in 1889, they established the highly successful mercantile firm of J. B. Shannon & Co. John B. Shannon, in partnership with Hon. J. F. Reynolds purchased the Johnson estate, "a tract of land adjacent to the city. . . which they called Reynshanhurst, selecting that name from eight hundred names suggested, in answer to an advertisement in our local papers, offering a prize to the person giving the most appropriate name to the plot. 'Reyn-shan-hurst,' combining the first half of the names of the owners [Reynolds, Shannon, Swindlehurst], was chosen and John H. Reese of our city received the prize. The plot was laid out in avenues and lots, one avenue being named Shannon Avenue after our subject." A substantial apartment block, the Shannon Block, stands today on North Main Street in Carbondale.

George Simpson: pioneer coal operator of Archbald; the 'Ridge,' lying a short distance southeast of Archbald, was named *Simpson* after George Simpson. He was born in Dumfries, Scotland, on November 12, 1823, and died in Archbald at the age of 60, his earthly remains are interred in Maplewood Cemetery. In 1857, the coal firm of Eaton & Co. was organized, which was composed of Alver Eaton, George Simpson, and Edward Jones. For more on George Simpson, see herein pp. 356-61.

Andrew Smith: "ANDREW SMITH comes from a long line of sturdy, God-fearing Scots, noted for their honorable dealings with all men and their unquestioning allegiance to whatever they believe to be the true and right. . . The birth of Andrew Smith took place in Deanhead, Haddington, Scotland, June 25, 1849, and his first years were passed in Pennston. He . . . was only ten years old when he began working in the mines. There were then no modern appliances and the miners were obliged to slide down a rope from three hundred to five hundred feet. It was his duty to push the cars to the foot of the shaft, but as time went on he became a practical miner and was promoted to be assistant

foreman when he was only twenty years old. In 1872 he was made mine foreman at Fountain Hall, remaining there eight years. . . [In 1884 he came to Pennsylvania.] Finding employment with Linderman & Skeer as a miner in their Hazleton collieries he stayed there until 1887, when he became outside foreman for Thomas Waddell. Soon he was given the place of inside foreman with the Mount Jessup Coal Company, having his home in Winton at this time. For a year or more he worked for the Delaware & Hudson Canal Company at Grassy Island, and for the past seven years has been inside foreman at the Marvine shaft with the same firm. / In 1871 Mr. Smith married in Edinburgh, Margaret McLeod, of the old family of McLeods of Caithness, Scotland." (*PABRLCP*, pp. 592-93)

Joseph Vannan: "JAMES VANNAN, engineer at engine No. 1, was born in Glasgow, Scotland, in 1834, and married Euphemia Harris, of New Jersey. He came to Carbondale in the fall of 1845 and has held his present position since 1860." He retained the position of engineer at engine No. 1 until the road was abandoned in 1899. (*1880*, p. 452E-F)

John Whyte: "JOHN WHYTE, mine foreman, was born in Dumfries-shire, Scotland. Coming to America in 1869, he settled in Ransom township, removing to this place [Archbald] in 1870, where he was married in May, 1872, to Sarah Wills. He has three children. He was weighmaster at the Eaton colliery until 1878, when he was appointed outside foreman, which position he now fills." (*1880*, p. 464D)

John T. Williams: Named foreman in the foundry of the Van Bergen Company, Limited, Carbondale, in February 1891. Born, February 12, 1854, in Baltimore, the son of John Williams, a native of Scotland. Worked as a slate picker as a boy. Learned the foundry business. "He is a thorough mechanic, an experienced business man, and is well qualified for his present responsible place. In addition to this work, he is a stockholder in a glass plant in Scranton. Characterized by industry and integrity, he has gained a competency of this world's goods, for he had no one to assist him in the battle of life." (*PABRLC*, pp. 548-49)

Amzi Wilson: Born in 1795 and died in 1872. Celebrated editor and publisher of the *Northern Pennsylvanian*, one of the earliest newspapers published in northeastern Pennsylvania. The paper was published in Dundaff. When it became clear that Carbondale was becoming the business center for the surrounding country, he moved his office to Carbondale, in 1833, where he continued, with great success, to publish the paper until 1837, when he sold to William Bolton, Esq. in exchange for a farm. Bolton moved the paper to Wilkes-Barre, April 24, 1840. 1837, Amzi Wilson was a school director in Carbondale. In the *Northern Pennsylvanian* of February 11, 1837 we read: Married "At

Canaan, Wayne County, on Sunday the 5th inst. by Noah Rogers, Esq. AMZI WILSON, Esq., Editor of the *Northern Pennsylvanian*, of Carbondale, Luzerne County, to Miss ESTHER, daughter of Nathaniel Wetherby, of Greenfield.” (*Northern Pennsylvanian*, February 11, 1837, p. 3). He was initially appointed Justice of the Peace by the governor, and then elected to the office. He was also for many years a member of the bar, having begun practicing law in Carbondale in 1841. He was commissioned as Alderman of the Third Ward of Carbondale, June 1862. He owned property in the Wilson Creek area of Simpson. The creek that flows through that area today is still known as Wilson Creek. In his final years, the loss of his sight incapacitated him for active business. He died on May 28, 1872, the same day as James Russell (listed above). Both men, as it turns out, were in the Carbondale court--Wilson as a witnesses, and James Russell as a juror—on the Wednesday before their deaths and, at the time, both were in good health. Upon his death Amzi Wilson left a widow and three children—Dr. J. N. Wilson, of Hollisterville, Wayne Co., and two daughters, married, and resident in Carbondale. We will have a lot more to say about Amzi Wilson in Volume XXIV in this series.

Andrew Wyllie: Superintendent of the iron department of the D&H blacksmith shops at Carbondale. Foreman of the D and H Canal Company's blacksmith shops, born in Scotland and came to Carbondale in 1851. Married Isabella Diack.

Coe F. Young: born near Mount Hope, Orange County, NY, May 15, 1824. At age 13 began driving on the towing path of the D&H Canal. In the spring of 1852 he bought of Major Cornell a half-interest in the canal freight line between New York and Northeastern Pennsylvania. After five years, he became, by purchase the sole proprietor of the line, and operated it alone for seven years longer. On January 1, 1864, at the solicitation of George Talbot Olyphant, president of the company, and Thomas Dickson, general superintendent, Mr. Young entered the service of that company as superintendent of the Canal Department; and in 1865 the Rondout and Weehawken Department was placed under his supervision. He was appointed general superintendent of the D&H on March 1, 1869, served in that capacity until July 1885. In 1869 Mr. Olyphant resigned as president of the company and was succeeded by Mr. Dickson. Mr Young was then made general superintendent, and, after three years, became general manager, a position in which he served until the death of Mr. Dickson, in July, 1884, when he was elected vice-president and general manager of the company.

Horace G. Young: son of Coe F. Young; in 1882, Horace G. Young was appointed Assistant General Manager; on September 30, 1885, he was appointed general manager to fill the vacancy created by the resignation of his father. In July 1884, when Thomas Dickson died, Coe F. Young (a confidential and long-term friend of Thomas Dickson's) was elected vice-president and general manager of the company. On October 1, 1885, Coe F. Young resigned and his son, Horace G. Young, was named vice president and general manager of the company. He was 2nd VP in 1898 when the closing was announced, and he was VP in 1899. He was a Manager in 1899. C. R. Manville was superintendent. R. M. Olyphant was president.

Table of Contents

5901 Introduction

5902 The Major Revisions for the 1859 Configuration

1. New Loaded Track

2. Technology Upgrade

3. Extension of Roadbed to Olyphant and Return

5903 A Closer Look at the 1859 Revisions

5904 New Loaded Track and Two Light Track Return Planes

5905 C. P. Wurts Excursus

5906 Plane No. 1

5907 Plane No. 2

5908 Plane No. 3

5909 Plane No. 4

5910 Plane No. 5

5911 Plane No. 6

5912 Plane No. 7

5913 Plane No. 8

5914 Return Plane on No. 8

5915 Return Plane on No. 7

5916 Plane No. 9

5917 Plane No. 10

5918 Plane No. 11

5919 Ten-Mile Level

5920 Planes Nos. 13-17

5921 Technology Upgrade

5922 Iron T-rails Instead of Strap Rails

5923 New and More Powerful Stationary Engines

5924 Wire Ropes and Not Hemp Ropes on the Planes

5925 Horses No Longer Used on the Levels

5926 Carbondale and the D&H in General at the Time of the 1859 Configuration

5927 The Gravity Shops in Carbondale (Part 1, up to 1864)

5928 Honesdale and the D&H in General at the Time of the 1859 Configuration

5929 Civil War Excursus

5930 Extension of Railroad to Valley Junction and Return

5931 Plane No. 21 “C”

5932 Plane No. 22 “F”

5933 Plane No. 23 “G”

5934 Plane No. 24 “E”

5935 Plane No. 25 “D”

5936 Plane No. 26 “B”

5937 Plane No. 27 “A”

5938 Jermyn, Archbald, Peckville, and Valley Junction and the D&H in General
at the Time of the 1859 Configuration

5939 Racket Brook to Olyphant

5940 Plane No. 28, 1859-1899

5941 Waterwheels in Carbondale and Archbald

Waterwheel on Plane No. 1

The Carbondale Canal

Waterwheels on Plane No. 28 before 1859

Waterwheel on Plane No. 21

5942 The North Branch Canal

5943 The D. & H. Gravity Railroad and Canal: Selected Bibliography

Introduction

In order to increase the amount of coal that the D&H could send to market to meet market demands, the D&H, in 1859, (1) revised the 1845 configuration of its Gravity Railroad from Carbondale to Honesdale, and (2) extended the Gravity line to the south to Valley Junction and beyond.

Who were the people who (1) made a reality the 1859 configuration of the Delaware and Hudson Canal Company's Gravity Railroad (Carbondale to Honesdale; Carbondale to Valley Junction), (2) implemented the technological improvements made to the system at this time (wire rope used on the planes, iron T-rails replaced strap rails, larger stationary engines at the heads of the planes; horses no longer used on the return levels), and (3) had constructed docks and storage facilities at Weehawken?

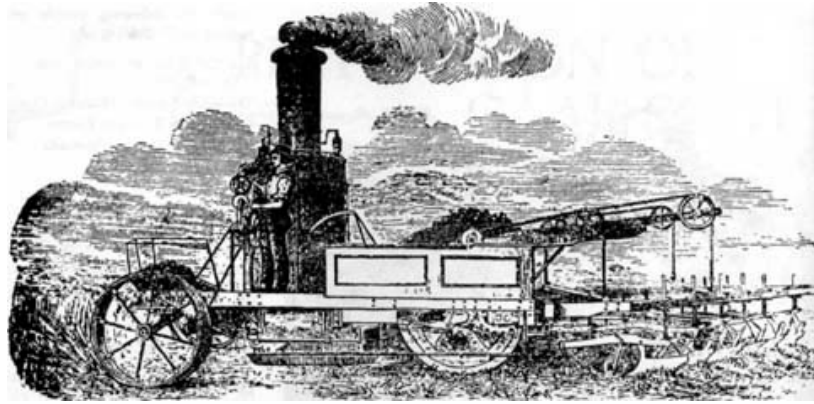
Answer: Charles Pemberton Wurts is the primary figure. Having worked with James Archbald for the ten-year period, 1843-1853, Charles Pemberton Wurts learned a great deal about railroads and railroad building. In 1853, when James Archbald moved to Scranton, C. P. Wurts assumed entire charge of the D&H's affairs, serving as chief engineer, 1853-1865. We focused on C. P. Wurts in some detail in the 1845 volume.

Working with C. P. Wurts was Rollin Manville, the constructing engineer in charge. Construction of the new line was begun in April, 1857, under the direction of Rollin Manville. Rollin Manville entered the service of the D&H in January 1856 as assistant superintendent. About Manville we will have a lot more to say herebelow.

In this volume, we will look at in detail all these important changes/modifications that were carried out under Chief Engineer Charles Pemberton Wurts and Constructing Engineer Rollin Manville.

What was going on in America in the middle of the nineteenth century?

In 1858 (September 17), Joseph Fawkes demonstrated his steam plow (see the photo at the top of page 34) in Centralia, IL at the Illinois State Fair. Horace Greeley called on the Chicago farm-machinery man, Cyrus McCormick, to advise him to buy up the patent. An editor for the *Chicago Press* reported: 'The excitement of the crowd was beyond control and their shouts and wild huzzas echoed far over the prairie.'



In 1859, on August 27, Edwin L. Drake drilled the world's first commercial oil well in Titusville, PA. This sparked America's first oil boom and marked the beginning of the modern petroleum era.

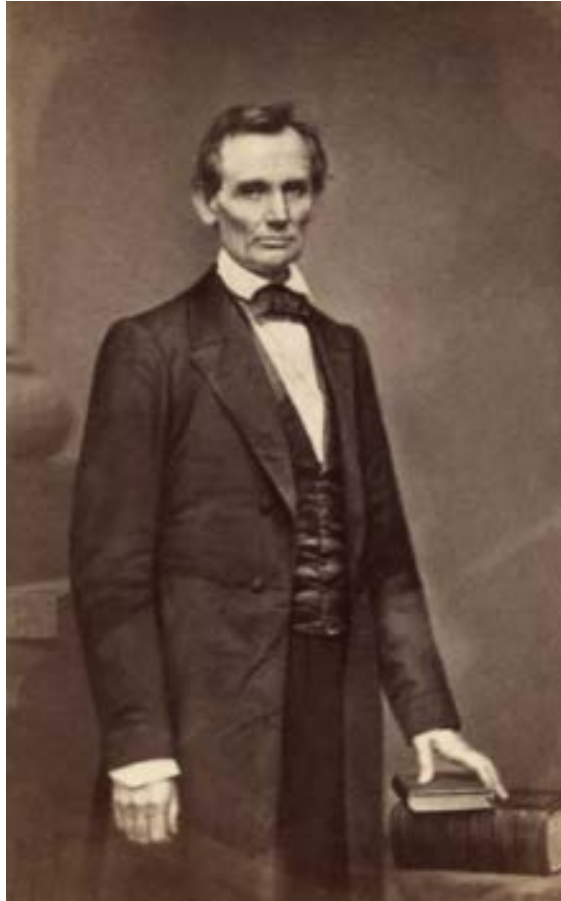


On the left: Edward Laurentine Drake (born March 29, 1819, in Greenville, NY; died November 9, 1880 in Bethlehem, PA); on the right: Drake's oil well in Titusville, PA.

In 1859, twenty-five hundred miles of new railroad trackage had been laid in just six months. By far the greater part of it had been spun out in the North and West, and now the two regions were firmly tied together by bands of steel.

On February 27, 1860, Abraham Lincoln delivered the memorable Cooper Union address in which he set forth the issues on which the new Republican party would appeal to voters and his no-compromise position on slavery. This speech projected Lincoln into the lead for the Republican presidential nomination. Horace Greeley was there. He advanced on Lincoln the

moment his speech was finished, asking for the manuscript of his address. He got it and, with Lincoln himself checking the rush galleys later that night at the *Tribune* office, the complete text of the epoch-defining speech was run in Greeley's *New York Tribune* the following morning (ahead of all the other papers). The *New York Tribune* (i. e., Greeley) described the speech as "one of the most happiest and most convincing political arguments ever made in this City."



Photograph of Abraham Lincoln taken February 27, 1860 in New York City by Mathew Brady, the day of his famous Cooper Union speech

In the following excerpt from the Cooper Union speech, Abraham Lincoln addresses himself to the question "What is conservatism?":

"But you say you are conservative - eminently conservative - while we are revolutionary, destructive, or something of the sort. What is conservatism? Is it not adherence to the old and tried, against the new and untried? We stick to, contend for, the identical old policy on the point in controversy which was adopted by "our fathers who framed the Government under which we live;" while you with one accord reject, and scout, and spit upon that old policy, and insist upon

substituting something new. True, you disagree among yourselves as to what that substitute shall be. You are divided on new propositions and plans, but you are unanimous in rejecting and denouncing the old policy of the fathers. Some of you are for reviving the foreign slave trade; some for a Congressional Slave-Code for the Territories; some for Congress forbidding the Territories to prohibit Slavery within their limits; some for maintaining Slavery in the Territories through the judiciary; some for the "gur-reat pur-rinciple" that "if one man would enslave another, no third man should object," fantastically called "Popular Sovereignty"; but never a man among you is in favor of federal prohibition of slavery in federal territories, according to the practice of "our fathers who framed the Government under which we live." Not one of all your various plans can show a precedent or an advocate in the century within which our Government originated. Consider, then, whether your claim of conservatism for yourselves, and your charge or destructiveness against us, are based on the most clear and stable foundations."

Greeley, who advocated a self-sufficient, industrialized America, in a word, had helped to found the Republican party and helped to shape the central issues of the Civil War. At the Republican convention, on the third ballot, Lincoln got the nomination. It was a great triumph for Greeley (who owned land in Pike County and who lectured in Honesdale in January 1854 under the sponsorship of the Literary Institute).

That nomination was made possible, many people believe, by a meeting that took place in Honesdale in the spring of 1859. It is reported that in the law office of Samuel Dimmick (located in a small building on the Park Hotel property at 115 Ninth Street in Honesdale) in the spring of 1859 was planned the nomination of Lincoln for president of the United States.

Present at the meeting were Horace Greeley, Senator Simon Cameron of Pennsylvania, Andrew G. Curtin (who would be elected Governor of Pennsylvania in 1861), and Samuel Dimmick (a Honesdale attorney who became attorney general of Pennsylvania in 1873).

5902

The Major Revisions for 1859 Configuration

Summary Statement

1. Roadbed

Loaded Track

Planes 1-8 to Farview (instead of Planes 1-5 + Summit Level from 1845); light cars worked back through these planes, which were double tracked

Planes 9-11 to Waymart (instead of Planes 6 and 7 from 1845); light cars worked back through these planes, which were double tracked

Ten-mile Level (loaded)—single tracked, as in 1845

Light Track

Planes 13-17 (water wheels beginning to go away)

William Johnson, Sr.: “In 1856 Mr. [C. P.] Wurts made other extensive changes. Instead of five planes as formerly eight were used and the level stretches between were graded so as to do away with the use of horses. Before that time [i. e., before 1856], also, both light and loaded planes had to be used at the one time, the loaded cars being hoisted by power while the empty ones carried the tail rope to the foot. [emphasis added; i.e., after 1856, light and loaded did not have to be used at the one time.] In this year the endless wire ropes were substituted for the old hempen ones.”

2. Technology Upgrade

--**Wire ropes** were substituted for the hemp ropes on all the planes, 1858.

--**Iron T-rails** replaced strap rails over most of the D&H Gravity Railroad, 1858. The T-rails gave much greater strength to the roadbed and heavier loads were inaugurated.

". . . [1858 revisions] There were no changes of importance made in the light track east of the summit, but one improvement was the replacement, throughout the length of the road, of the old wood and strap iron rails by the new "T" iron rails manufactured at Slocum Hollow (Scranton). / In spite of these substantial improvements on the canal and the gravity railroad the demand for anthracite was growing so rapidly that it could not be met. . ." Part 5 of E. D. LeRoy's series that was reprinted from the *Department of Internal Affairs Bulletin* in the *Carbondale News* under the title of "Canal Value for Transportation Proved by 1830; Not So Railroads"

Railroad Iron from England, 1853:

“**Railroad Iron.**—On Tuesday no less than eight vessels arrived at New York from England, with cargoes of Railroad Iron, viz: Ship Medallion, 893 tons; ship Amelia, 845 tons; ship Moro Castle, 782 tons; ship Champlain, 745 tons; barque Florence, 485 tons; barque Gleanor, 350 tons; barque Rainbow, 500 tons; and the barque Austin, 420 tons—making a total for the eight vessels of 5,020 tons.” (*Carbondale Transcript and Lackawanna Journal*, October 7, 1853, p. 3)

--**Larger stationary steam engines installed on all the planes.**

The D&H purchased sixteen 75-horse power engines from the Dickson Manufacturing Company, Scranton, for use on all planes.

--**Horses no longer used on the levels**

The first of eight new engines installed on the Gravity Railroad:

“No. 4 Engine, on the new railroad was put into operation a few days ago and works excellently. This is the first of eight to be placed on the road between here and Waymart. The engines, etc. are from the extensive Machine Works of Messrs. Dickson & Co., at Scranton, and are said to be of superior strength and finish.” (*The Advance*, August 13, 1857, p. 2)

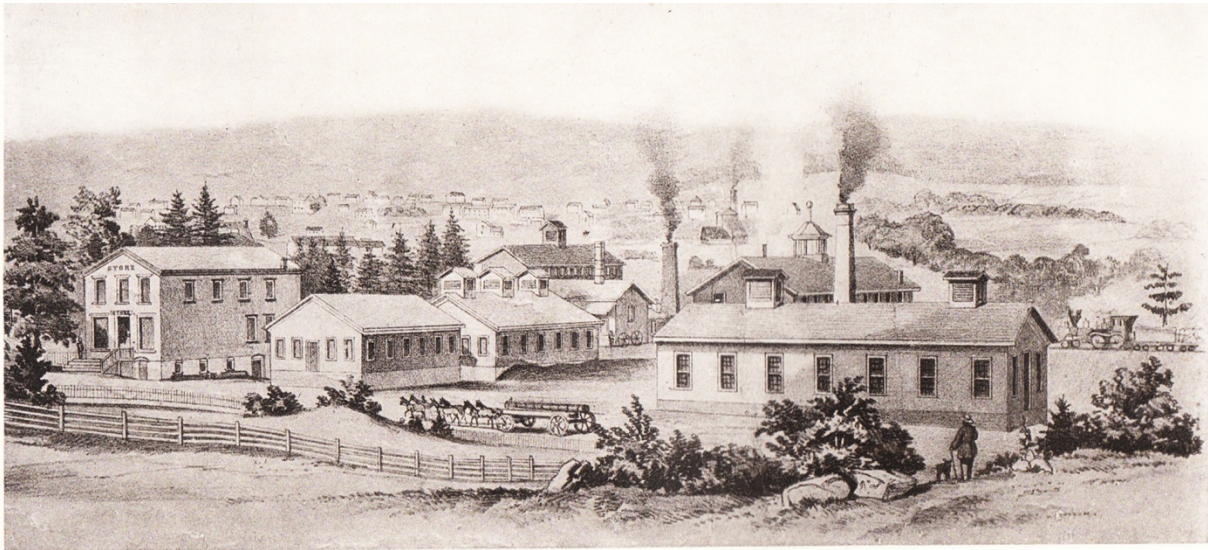
Dickson & Co., Scranton:

Construction of Dickson & Co. began on January 29, 1856, and the company began operations on May 29, 1856. This company played a central role in the history of the D&H and it is appropriate that an account of the company be included in this history of the D&H Gravity Railroad. Most interestingly, during the visit to the company by the journalist from the *Scranton Herald* who wrote the description of Dickson & Co. that is given below, sixteen 75-horse power stationary steam engines were then being built by Dickson & Co. for use on the planes of the D&H Gravity Railroad.

“**Messrs. Dickson & Co.’s Works.** / Last Monday we paid a visit to the works of Dickson & Co., and must confess that we were surprised at their extent. / The pattern room, which we first entered, is 40 by 120 ft. From fifteen to twenty men are employed here in making patterns for the various machinery and castings done at the shops. The room is heated by steam pipe. About 1400 feet of pipe is laid about the room for this purpose. We noticed two monster patterns,—one complete and the other nearly so.—a bed plate for an engine of 75 horse power. This bed is 18 feet long by about three or four wide, and the casting when finished, will weigh about seven thousand five hundred pounds. The other, a bed plate for various kinds of machinery that will weigh when done, about ten thousand pounds. A circle saw, and upright saw mill, and other machinery, are in operation to facilitate the work, &c. / Passing from the pattern room, we entered the machine shop below—93 by 120 feet. The machinery is driven by a 75 horse power engine. In this room are about thirty lathes for fitting the castings of all kinds of machinery. One of these lathes is probably the largest in the country. It will turn a shaft of iron four feet in thickness and twenty-four in length. By the side of it stands another that will turn a wheel sixteen feet in diameter. The remainder of the lathes are of various sizes and adapted to the turning of all kinds of machinery from the sizes above spoken of to the smallest used for any purpose. Three planes are used for planing iron of various descriptions. One of these is the largest in the country, its plate being 4 by 24 inches. We noticed a machine called a Slotter, for cutting key seats in heavy machinery, which is an immense tool. It took the premium at the World’s Fair in New York. / The above constitute but a small portion of the machinery in use here—we only note the largest and most remarkable. / Sixteen stationary engines of seventy-five horse-power each, are being built here for the Del. & Hudson Canal Co. Adjoining this is a small room used by a draftsman in preparing drawings of the various machines to be built, from which the patterns are made. Under it is a well 42 feet deep from which a plentiful supply of water is obtained by a pump worked by the engine, and thrown in every part of the works. / A few steps from the machine shops stands the foundry—a building 50 by 80 feet. Everything in the shape of a casting is cast here. It also contains a monster oven for baking the cores used in hollow castings. A brass foundry is attached to this for casting the various descriptions of that metal used the

various parts of nice machinery. / Next we came to the blacksmith shops--40 by 60 feet. The forges are blown from a large fan in the machine shops about 100 feet distant. / Next we visited the boiler shops where are manufactured all kinds of steam boilers. Six monster boilers for the Lackawanna Iron Company are being constructed here. They are 63 feet long and three feet four inches in diameter / Next we visited the store house and offices not yet completed. This is 26 by 80 feet, and will be used for storing machinery. Patterns, &c., and also for offices. It is admirably arranged for the purpose. / We have thus briefly glanced at the various departments of these works. Everything is admirably arranged, and there is nothing in the shape of machinery that the Company is not prepared to do in the best manner. The object aimed at is completeness in all branches of machinery, and we should judge that the object has been well attained. / The most remarkable feature of this enterprise is the rapidity with which the work has been pushed on. Less than one year ago, (the 29th of Jan. last,) and on the 29th of May a heat was run off in the foundry. Very large excavation was required, and the masonry was also very heavy. Now the whole neighborhood is made noisy with the clatter of the hammer and the hum of machinery. About one hundred and thirty men are employed in the shops. The capital invested is one hundred thousand dollars. We trust the Company may realize the fondest expectations from their enterprise, for certainly energy like that which they have manifested deserves ample reward.—*Scranton Herald.*" (*Carbondale Transcript, and Lackawanna Journal*, January 23, 1857, p. 2)

Engraving showing Dickson & Co. in 1858 facing page 50 of *Logan*:



SCRANTON FOUNDRY AND MACHINE WORKS,
DICKSON & CO.,
1858.

3. Extension to Olyphant

--completed in 1858 and ready for use on May 1, 1859, at a cost of over \$300,000 (stationary engines, bridges, roadway with the necessary equipment)

The history of the extension to Valley Junction (one-half mile below Olyphant, where the Gravity and locomotive tracks intersected) and the history of the Valley Road are very closely connected, inasmuch as one took the steam train to Providence (initially) by taking the Gravity Railroad to Valley Junction and then transferring to the steam line (which was only a few miles long initially). There will be a separate volume in this series on the Valley Road (the locomotive steam line from Carbondale to Providence).

March 12, 1859: the Pennsylvania Legislature passed a bill (A Supplement to An Act to Improve the Navigation of the River Lackawaxen, Passed the Thirteenth Day of March, One Thousand Eight Hundred and Twenty-Three; Pennsylvania Laws, 1859, No. 123) giving the D. & H. the right to purchase an additional 3,000 acres of land in the townships of Fell, Carbondale, Blakely and Providence (these 3,000 acres in addition to the 5,000 acres in the original grant) and also the power to construct all needful roads, to connect the same with the then existing works of the Company. Accordingly, the D. & H. purchased a considerable body of coal land in 1859, and set about constructing an extension of the Company's railroad to the South, 4 ½ miles from its previous terminus, to a point within one mile of Scranton. This extension to Olyphant/Valley Junction to become operational on May 1, 1860.

4. Weehawken docks and storage yard

1859-1861: the D&H built a huge dock and storage yard at Weehawken, NJ. The site for this coal depot and basin was purchased in 1858; docks constructed 1859, the improvement to cover about 17 acres, and to provide a basin to be used as a winter harbor for loaded boats, with space there on the docks sufficient for deposit there of coal needed by customers in the Winter and early Spring. Completed in 1861.

5903

A Closer Look at the 1859 Revisions

In 1855 and 1856, over a million tons of coal were hauled through the D&H Canal (about half of those quantities was Pennsylvania Coal Company). More could have been shipped if the Company (in its 1845 configuration of the D&H Gravity Railroad) could have gotten that coal to Honesdale. The managers of the D&H decided to improve the Gravity Railroad and enlarge its capacity. A new configuration, the 1859 configuration, was begun in 1856. The work of revising continued over a period of two years.

Detached levels on light track:

One of the most remarkable features of the 1859 configuration are the detached light track levels on Planes No. 7 and No. 8. About those two levels, we will have a lot more to say, below. Suffice it to say here, that those two levels represent an important transitional moment in the technological history of the D&H Gravity Railroad.

The 1859 roadbed described in *Century of Progress*:

“A material enlargement in the capacity of the railroad was commenced in 1856, the Managers authorizing, on February 15, alterations and improvements ‘west of plane No. 6.’ Accordingly a new road between Carbondale and the summit was constructed on a new location, and the number of planes was increased from five to eight. Six of the new planes and the intervening levels were double-tracked. [Emphasis added] The other two planes were also double-tracked, but on this section new tracks for light cars were constructed on descending grades to the foot of ‘return planes’ by which they were elevated to the head of the next plane. These improvements were completed early in 1858.” (*COP*, p. 154)

Levels on light track on Planes 1-6: built on descending grade; levels on No. 7 and No. 8 were detached from loaded track:

“The final location of the loaded track from Carbondale to Farview was made in 1856-57 when an entire new line was built and eight planes used in place of the former five, thus shortening the intervening levels. To entirely dispense with horses the light track between the planes was built on a descending grade [Emphasis added], two short ‘return’ planes being built near the head of Numbers Seven and Eight, to bring the empty cars to the top of these planes. Operations of the planes continued the same . . .” (“Our Own Gravity Road,” *The Delaware and Hudson Company Bulletin*, July 15, 1925, pp. 6, 9-11)

5904

New Loaded Track

The preparations for the construction of the 1859 configuration were underway in the summer of 1856. This we know from the following notice that was published in the *Carbondale Transcript and Lackawanna Journal*, August 14, 1856, p. 2:

“The Delaware and Hudson Canal Company have located their new Railroad, and are engaged in clearing the track, preparatory to grading. To reach the summit of the mountain they design to have eight engines, where they now have but five, and dispense altogether with the use of horses on the track. [Emphasis added] This will enable them to transport an increased amount of coal over the road, which we learn, they are preparing to do. Success, say we, to every enterprise calculated to add to the business of this part of the valley.” (*Carbondale Transcript and Lackawanna Journal*, August 14, 1856, p. 2)

Whiting on the 1859 Roadbed:

“... in 1856 the present planes and ‘levels,’ from the foot of No. 1 to the head of No. 10, were commenced. This arrangement employed eight planes up the mountain from Carbondale to the summit, and all of the planes were renumbered as they are at present. / About this time, too, steam was substituted for water power at the planes using water wheels. . .” *Cassier* article by Whiting

New Roadbed Constructed by Rollin Manville:

Construction of the new line was begun in April, 1857, under the direction of Rollin Manville, the constructing engineer in charge. This we know from his obituary, which was published in the *Carbondale Leader* of June 25, 1891, p. 4.

Rollin Manville entered the service of the D&H in January 1856 as assistant superintendent. He died on June 24, 1891. Given the importance of Rollin Manville in the history of the D&H, it is well to reprint here his obituary:

Manville Excursus:

Rollin Manville:

“SUPT. MANVILLE DEAD. / He Passed Away at 6:40 O’Clock Last Evening—The History of an Active Live. / Just as the brilliant orb of day touched the western horizon, bathing the earth in splendor and lighting up the clear blue sky with fitful flashes that betoken the parting day, the soul of Rollin Manville peacefully took its flight from earth to that land where time is not measured by the rising and setting of the sun. At 6:45 last evening the end came and the earthly career of one whose active life had kept him in close contact with a busy world terminated, not suddenly, leaving incomplete the life task undertaken, but rather as one who at the close of day lays aside the implements of labor and enters upon the well earned rest. Sad always are life’s closing scenes but the gloom which hides the border land from mortal sight is brightened by the consciousness which possessed those who watched the fluttering breath, that the life ebbing slowly away, was in all its vigor for many years earnestly devoted to making the world better for the important part which he had taken in its affairs. It is this knowledge that fills the human heart with hope and enables those who mourn most keenly to bear the sorrow which this bereaved family are called upon to suffer. In their sorrow this family of the deceased have the earnest sympathy of this entire community and the tears of all classes will mingle to-day with those of his loved ones, for there is real sorrow among the people, for they realize that a warm, true friend of the people has passed to his final reward. / **His Active Life.** / Mr. Manville was born at Whitehall, Washington county, N. Y., November 6th, 1824. He entered the railroad service as rodman with the surveying party in charge of the construction of the Saratoga &

Washington R. R. in July, 1847, and continued in the service of the same road until October, 1849, when he was appointed Division Engineer of the New York & Harlem R. R. His first work in Pennsylvania began when he was employed to survey and make plans for a railroad from Wilkes-Barre to the Delaware River at Water Gap. The survey was made during the summer of 1853, but the project was abandoned after the plans had been prepared. In September of the same year Mr. Manville returned to New York and was appointed constructing engineer of the Flushing and Hunter's Point Railroad. The road was completed in June, 1855, and in January, 1856, Mr. Manville entered the service of the Delaware & Hudson canal company as assistant superintendent, taking entire charge of the gravity railroad from Waymart to Honesdale, the coal pockets, and the canal docks, and the entire plant pertaining to the trans-shipment of coal by boat. [emphasis added] During that year the system of transferring coal from cars to boats was subjected to many changes and the cost of trans-shipment was materially lessened not only, but the loading of canal boats under the new methods was made comparatively easy. The improvements made under the direction of Supt. Manville at Honesdale were in line with the changes contemplated in the entire gravity railroad system, and when the work of constructing the present gravity railroad was commenced in April, 1857, Mr. Manville was placed in charge as constructing engineer. [emphasis added] Nowhere in the world has the skillful engineer accomplished so economically such a feat in railroad building as the system of inclines over which millions of tons of anthracite have been transported out of the valley of the Lackawanna over the Moosic range into the valley formed by tributaries of the Delaware. / The problem which puzzled the coal producers in the anthracite region was how are we to secure transportation to the seaboard and the markets east and west for the produce of our mines. This was one of the important questions that Mr. Manville was called upon to grapple with and to his practical foresight is largely due the fact that the Delaware & Hudson Canal Co., own and control the leading outlets from the northeastern coal fields of Pennsylvania and possess shipping facilities that are not surpassed by any carrying corporation in the United States. [In 1864 he was made general superintendent of the Pennsylvania division of the road, which position he held until his death in 1891. His son, C. R. Manville, who had been his father's assistant from 1885, became his successor.] / **What He Accomplished.** / Under Mr. Manville's administration the valley road was constructed, the Union coal company's line purchased; the arrangement under which the freight and passenger trains of the Delaware & Hudson are whisked over the Erie's branch; the Albany and Susquehanna, and Renneselear [sic] & Saratoga acquired, the connecting link between Lanesboro and Nineveh built; the Canada outlet constructed; the extension of the valley road to Wilkes-Barre completed and the Farview switchback, [Shepherd's Crook on the light track] which has made the railroad famous the country over, are among the evidences of what was accomplished during the five and thirty years that he served as railroad superintendent of this great coal and railroad corporation. [emphasis added] Such a record of a busy life few men even in this age of phenomenal progress, are privileged to leave behind when called to leave the sphere in which their lives have been spent. / But this alone does not complete the story of this active life, for with all the time and labor devoted to the interests of the company which he so faithfully and ably served, Mr. Manville found the time to look after the interests of the men whose services in the various departments of the railroad system he considered quite as essential

to the success of the corporation as the responsible places held by the managers. In all his relations with the men he was uniformly courteous and in his decisions he was known to be uniformly fair. He had grown up with the great corporation and was not only familiar with the duties of the humblest employe, but he retained for the workman the kindly feeling engendered by the spirit that men in whatever situation in life are of one family and entitled to all the privileges that free and equal birth secures. / Few men enjoyed the confidence of so many wage earners as did Supt. Manville, and in the multiplicity of changes he was never known to pass an acquaintance without a kindly greeting or nod of encouragement. His great heart was readily touched by the appeal of the needy and his hand was never withheld when the claim of the helpless was presented to him. In all matters pertaining to the home life he was a staunch advocate of home protection. As a citizen he was always ready to further every movement looking to the improvement of the home town and in these days of contemplated progress the enterprising element in this city will sadly miss the encouraging words and practical aid he was always so ready to extend them. / When the movement came to erect a hospital for the care of the injured miners and railroad men was projected Mr. Manville was among the first to give it his hearty support and as the President of the Board of Trustees he did much to set the organization right before the people of the district. In this as well as all matters pertaining to the growth and prosperity of this city the death of Supt. Manville will be keenly felt. / His residence in this city dates from January, 1864. A quarter of a century well rounded out he has been one of the people of the Anthracite city. / **The Funeral Services.** / This afternoon the remains will be brought from the cottage at Farview to the family residence in this city. To-morrow morning at eight o'clock the body will be taken to Trinity Church where those who wish to look upon the face of the dead man for the last time may do so, between the hours of 8 o'clock a. m. and 4 o'clock p. m. At five o'clock religious services will take place, and on Saturday morning at 6:20 o'clock the remains will be conveyed by special train to Troy, N. Y., where in accordance with the last wishes of the deceased and the desire of the family the body will be incinerated." (*Carbondale Leader*, June 25, 1891, p. 4)

Article written by *Leader* reporter as the body still lay in Trinity Church for viewing:

"HUNDREDS VIEW HIS FACE. / Mr. Manvilles [sic] Remains at Trinity Church—Resolutions Passed. / The body of Superintendent Manville was brought to this city by special train from the Farview residence yesterday afternoon, and was met at the Seventh avenue station by the heads of the departments of the Delaware & Hudson Company, and many prominent citizens, who escorted the remains to the family residence on North Main Street. Many intimate friends and relatives from this city and elsewhere called at the house during the latter part of the day to offer their condolence to the family and their assistance in any way that they could be made useful. / This morning at eight o'clock the remains were taken to Trinity church where the face was exposed to view and hundreds have filed past the bier during to-day. The face of the dead man is remarkably free from the effects that would be expected as the result of his suffering, and he seems to be in a peaceful, refreshing sleep. There were many wet eyes among those that gazed on the features that were familiar on the streets so short a time ago, and the

emotion was not confined to any class. / Around the casket a profusion of flowers were sent by friends, some of them worked into beautiful emblems, and many potted plants sent as a tribute by those who knew Mr. Manville. The family pew in the church is draped and a few lilies occupy the space that was so often filled by the dead superintendent. / The offices of the Delaware & Hudson Company are draped in mourning and the gravity and locomotive shops are closed. The Hendrick Manufacturing Co's works stopped work at noon, and nearly every place on the business streets will close between the hours of four and six o'clock. / After the funeral services this afternoon the body will remain in the church until to-morrow morning when it will be removed at 6:45 to the Seventh avenue station and taken thence by special train to Troy for Cremation. / The pall bearers are Messrs. L. A. McMullen, E. M. Peck, Mayor Rettew, George Burrell, Thomas Orchard, Andrew Wylie, Pierce Butler and William Bowers. / HOSPITAL TRUSTEES' RESOLUTIONS. / At a special meeting of the Board of Trustees of the Hospital Association held last evening in the city council chamber, vice president John B. Davis presiding, the members took occasion to voice their sorrow at the death of the President R. Manville. On motion by J. B. Van Bergen, Messrs. M. F. Norton, Julius Moses and S. S. Jones were appointed a committee to prepare a memorial expressing the profound sorrow of the members of the Hospital Association on this occasion. The committee submitted the following which was approved and the secretary was directed to make the memorial a part of the records of the meeting and have the same published: / The death of Rollin Manville, president of this Board of Directors, of the Carbondale Hospital Association fills the hearts of his associates with sadness. In the meetings of this organization his presence has served to encourage and his words of counsel made the difficult task undertaken comparatively easy work. To this undertaking he brought his experience and an earnest desire to provide an asylum for the homeless injured; two forces that never fail to secure success. / To this association the death of Mr. Manville is a severe blow, but the surviving members bow in humble submission to the edict which deprived them of a wise and deliberate presiding officer, a thorough going business manager, and an ever cheerful and companionable associate. / Bowing reverently to the will of Him who doeth all things well, we tender to the bereaved family of our departed president the earnest sympathy of men bound by ties fraternal to cherish the memory of him who death they mourn to-day. / On behalf of the Board / M. F. Norton, Julius Moses, / Saml. S. Jones. / Com. / CRYSTAL LAKE WATER CO. RESOLUTIONS. / At a special meeting of the Directors of the Crystal Lake Water Company held at their office on Friday morning, June 26, to take action upon the death of Rollin Manville, President of the Company, and to give an expression of their sorrow and loss, the following preamble and resolutions were unanimously adopted: / WHEREAS, It hath pleased our Heavenly Father in His infinite wisdom to remove from among us our esteemed friend and associate Rollin Manville, and / WHEREAS, He has been associated with us in intimate business relations since the organization of this company and for the past twenty-three years its honored and efficient President, an / WHEREAS, By his extreme amiability and warm heartedness coupled with a high sense of business equities and sterling integrity he has endeared himself to us while living and left behind him a memory which we shall delight to cherish, and / WHEREAS, These and many other ennobling traits of character influence us to desire to testify our appreciation of his life among us; therefore / *Resolved*, That in the removal from this Board of our honored President

and director of whose invaluable services death has deprived up, we feel that this company has suffered an irreparable loss, and that we but voice the sentiment of the people of this city that they have been deprived of a friend and leader whose life has been devoted to the best interest of the community. / *Resolved*, That we extend to the bereaved family our heartfelt sympathy in the great loss they have sustained and can only commend them to the tender mercies of 'One too wise to err.' / *Resolved*, That a copy of these proceedings be presented to the family of the deceased and also furnished *The Carbondale Leader* for publication. / Alfred Pascoe / C. E. Spencer. / Com." (*Carbondale Leader*, June 26, 1891, p. 4)

The account of the funeral of R. Manville that is given here is an interesting sociological document unto itself. At the same time, the listing in this account of the names of the railroad and mining personnel who attended this funeral make this account especially interesting as a *Who's Who* in railroading and mining in Carbondale and environs in 1891.

"FUNERAL OF R. MANVILLE. / A Large Number of Distinguished Men at the Service. /

The last rites over the mortal remains of the late Superintendent Manville took place yesterday afternoon at four o'clock in Trinity church and the gathering that assembled to honor the memory of a beloved man was a notable one. In the assemblage were many persons of distinction, among them Col. and Mrs. H. M. Boies, of Scranton; ex-Congressman Jadwin, of Honesdale; Horace G. Young, of Albany, General Manager of the Delaware & Hudson Canal Company; John Jermyn, of Scranton; W. F. Hallstead, of Scranton, General Manager of the Delaware, Lackawanna and Western Railroad; John B. Smith, of Dunmore, President of the Erie & Wyoming Valley Railroad; R. Livingston Crosby, private secretary to R. M. Olyphant, President of the D. & H. C. Co.; Hon. H. M. Seeley, of Honesdale, President Judge of Wayne County; E. D. Moyles, of Albany, Assistant Superintendent of the National Express Company; D. Wilson, of New York, General Accountant of the D. & H. C. Co.; R. C. Blackall, of Albany, Superintendent of Machinery, D. & H. C. Co.; C. D. Hammond, of Albany, Superintendent Northern Division, D. & H. C. Co.; M. C. Carr, Supt. of Scranton Division, New York, Ontario & Western Railway; A. H. Vandling, of Scranton, Supt. D. & H. Mine Department; J. M. Chittenden, of Scranton, Asst. Supt. D. & H. Mine Department; W. R. Storrs, Gen'l Supt. Delaware Lackawanna & Western Railroad; William Muir, of Honesdale, Supt. D. & H. Canal; Sidney Broadbent, of Scranton, Supt. Dickson Manufacturing Company; George H. Catlin, Vice President Second National Bank, Scranton; Capt. James Manville, of Whitehall, N. Y., a brother of the deceased; W. W. Manness, of Scranton; Genl. Supt. Lackawanna Iron & Coal Company; Miss Manness, Miss Reynolds, Mr. and Mrs. George L. Dickson; Mr. and Mrs. Walter Dickson; Mrs. Benj. Greenstead, John H. Howarth, R. W. Kellow, F. C. Platt, C. D. Simpson, O. S. Johnson, J. H. Torrey, Esq., H. V. Hatton, Thomas Moore, R. N. Patterson, Esq., Charles McMullen, William H. Richmond, Rev. H. C. Swentzel, of Scranton; H. Z. Russell, Esq., Charles Ball, Dr. Dusenberry, H. J. Conger, G. F. Wilbur, Charles Peterson, T. F. Torrey, Esq., and M. B. Allen, of Honesdale; John S. Law and John Sawyer, of New York City, W. B. Culver, of Pittston; A. P. Bedford, of Wilkes-Barre, and A. L. Patterson, of Waymart. / Up to the time of service people visited the church in a continual stream to view the face. The people were taken

care of by seven ushers, S. A. Mullen, Charles Orchard, Eli Birs, E. C. Harnden, J. H. Orchard, N. L. Moon, J. F. Wheeler and Frank Hubbard, and the arrangements for the service were complete in every detail. The church was not crowded uncomfortably when the service began, but it was not owing to lack of numbers. Many considerate persons remained on the outside to leave room for those who had come from a distance and the result was ample space for those who were inside. It was Mr. Manville's expressed wish before he died there should be no ostentation over his remains, and his desire was carried out. No sermon was preached, and the simple but impressive burial service of the Episcopal church constituted all of the public rites. The Rev. E. J. Balsley, rector of Trinity was assisted by the Rev. G. C. Hall, of Honesdale, and the Rev. B. H. Abbot, of this city. Mr. Balsley led in prayer, Mr. Hall read a portion of St. Paul's First Epistle to the Corinthians, and a quintet composed of Miss Lizzie Abbott, Mrs. F. M. Leonard, Mrs. T. Griffin Smith, A. J. Wells, and T. Griffin Smith sang the familiar hymn, 'How Firm a Foundation,' and chanted the prayers, and this was all. / The acting pall bearers were Hon. C. E. Rettew, E. M. Peck, S. A. McMullen, Thomas Orchard, William Bowers, Andrew Wylie and Pierce Butler. The honorary pall bearers were George L. Dickson, Hon. J. B. Van Bergen, W. F. Hallstead, W. R. Storrs, A. H. Vandling, William Muir, H. J. Conger, John B. Smith, J. M. Chittenden, G. F. Wilbur, W. W. Bronson, William McMullen, R. W. Kellow. / The body remained in the church until half past six this morning when it was taken to the Seventh Avenue station for removal to Troy for cremation, in charge of a number of relatives and intimate friends. Vice President H. G. Young's private car was placed at the disposal of the party." (*Carbondale Leader*, June 27, 1891, p. 4)

Rollin Manville's will:

"WILL OF ROLLIN MANVILLE. / He Divides His Property Among His Wife and Children. / The will of Rollin Manville, late of Carbondale, was placed on record in the Register's office yesterday and letters granted to the widow, Mrs. Helen M. Manville, and the son of the decedent, C. Rollin Manville. / The will was signed on August 16, 1882, and was witnessed by Hon. J. B. Van Bergen and Mr. George L. Dickson. Mr. Manville directs that all of the household goods and silverware shall go to his widow and all the other property, real and personal, shall be divided in four equal parts to go to his wife Helen M., his son, C. Rollin, his son Willis, and his daughter, Miss Florence." (*Carbondale Leader*, July 9, 1891, page 3)

C. R. Manville (son of Rollin Manville) Named Superintendent of D. & H:

"**C. R. MANVILLE SUPERINTENDENT / Appointed to the Position Made Vacant by His Father's Death.** / All the uncertainty—if there was any—as to the permanent appointment of a superintendent of the Delaware & Hudson Canal Company to succeed the late R. Manville has been dispelled by the publication of an order from the headquarters of the company giving the position to C. R. Manville, who has for some time been the acting official. The order reads as follows: / Delaware and Hudson Canal Company, / Office of the Second Vice President /

Circular No. 18 / ALBANY, N. Y., July 15th, 1891 / Taking effect this date, C. R. Manville is appointed superintendent of the Pennsylvanian Division, vice R. Manville deceased. / He will be respected and obeyed accordingly. / H. G. Young, / Second Vice President. / Mr. Manville was called to Albany this week where the appointment was tendered him and accepted, and the management of the division will go on without change, despite the pronouncements of many wise-acres who, even after THE LEADER'S semi-official report from Albany, were certain that this division was to be brought under the immediate control of C. D. Hammond, superintendent of the Northern Division—a plan as impracticable and improbable as unnecessary." (article, most probably from the *Carbondale Leader*, in Gritman scrapbook, dated Saturday, July 18, 1891)

"MR. MANVILLE'S PATRIOTISM / Shown by His Gift to the Railroad Engineers. / The engineers on the Delaware & Hudson are to be found now and then craning their necks to get a better view of the miniature 'old glory' which floats from its staff in the sand box cover. / The flags, over one hundred of them, were the gift of superintendent C. R. Manville as a illustration of his patriotism." (*Carbondale Leader*, May 2, 1898, p. 5) Note: In the same issue of the *Carbondale Leader*, it was announced, on page 5, that the American squadron, under Commodore Dewey, had destroyed Spain's Asiatic fleet in the Battle of Manila.

"RESIGNATION OF SUPT. MANVILLE. / Some surprise was occasioned in railroad circles yesterday when the announcement was made that Mr. C. R. Manville, superintendent of the Pennsylvania Division of the Delaware and Hudson railroad had tendered his resignation to take effect Dec. 1. Mr. Manville has been superintendent of this division for the past twelve years, [Superintendent of the Pennsylvania Division of the D. & H.: July 15, 1891—December 1, 1903], having succeeded his father, the late R. Manville. / He graduated from the Troy polytechnic school and began his railroad service as a civil engineer. / Mr. Manville will be succeeded by H. G. Gilpin, now general superintendent of the New York, Susquehanna and Western, with headquarters in Jersey City. Under the direction of Vice President Culver, the transportation system of the Delaware and Hudson company will be reorganized, beginning Dec. 1. At the present time there are three departments, viz., the transportation, mechanical and maintenance of ways. These will all be under one head and the divisions known as the northern railroad department, the Susquehanna, Rensselaer and Saratoga and Champlain divisions and the Pennsylvania division all come under one head and the whole system of transportation will be directed by an official known as general agent. / This system will be divided into four divisions with the following superintendents: H. G. Gilpin, superintendent of the Pennsylvania division; P. H. Conner, superintendent of the Susquehanna division, with office at Oneonta; A.T. Benjamin, superintendent of the Troy and Saratoga division, with office in Albany, and D. F. Waite, superintendent of the Champlain division. / A. J. Stone will be general superintendent in charge of the transportation, mechanical and maintenance of ways department. / C. D. Hammond will be general agent of the transportation department. He will be located at Albany, and will have

charge of the four transportation divisions. A new department of coal and mining will be formed and will be operated independent of the other divisions." (article in Gritman scrapbook dated November 28, 1903)

Rollin Manville's son, C. R. Manville, was named Superintendent of the Pennsylvania Division of the Delaware & Hudson Canal Company, on July 15, 1891, and served the D&H in that capacity until December 1, 1903, when he resigned, to be succeeded by H. G. Gilpin who, at the time, was superintendent of the New York, Susquehanna and Western (headquarters in Jersey City). See article titled "Resignation of Supt. [C. R.] Manville], dated November 28, 1903, in Gritman scrapbook.

Willis Manville, son of C. R. Manville, Hurt in Sleighing Accident:

"Master Willis Manville, son of Superintendent Manville, was badly bruised outwardly and injured internally, last Friday afternoon, while coasting on Graded School Hill. While coming along swiftly on his fast sled, one runner at the foot of the hill ran into a deep rut in the sidewalk, throwing him against a post. It was at first reported that bones were broken, but we are happy to learn that such is not the case." (*Carbondale Advance*, February 6, 1875, p. 3)

Willis A. Manville Named Station Agent at Wilkes-Barre:

"We learn that Willis A. Manville, of the city, son of Supt. Manville, has been appointed station agent and solicitor of the D. & H. C. Co. at Wilkes-Barre, in place of E. Shoupt resigned. (*The Journal*, November 10, 1887, p. 3)

Death of W. A. Manville:

"W. A. MANVILLE IS NO MORE. / His Sudden Death Last Evening Comes as a Great and Sad Shock to His Family and the Community. / It was a sad shock that the community was given this morning in the news of the death of W. A. Manville which occurred at his home on North Main street last night. The announcement of his demise came as a veritable blow to the great majority—who did not realize that Mr. Manville had been ailing and who could only remember him as of rugged and healthful appearance. / It is but a few days since he was participating in the active scenes and enjoyments of life and his untimely demise forcibly illustrates the adage that 'in the midst of life we are in death.' Few of even his intimate friends had heard of his illness and the suddenness of the attack with its sad ending is such that even the immediate family can scarcely realize as yet their loss. On every side were heard today pained expressions over the sorrowful event and deep sympathy was universally expressed for the family in their severe affliction. / Willis Arthur Manville was born in Honesdale on January 29, 1861. When he was but three years of age the family removed to this city and since that time he has been a continuous resident here. It is safe to say that he was known to every Carbondalian and his personal acquaintanceship had grown in the last few years to a point which embraced nearly the entire valley. That he had a host of warm friends in every city and town in this vicinity

is attested by the flood of mourning telegrams that have come over the wires to the bereaved family today. / Educated in the public and private schools of this city he grew up with the men who are today taking the more active part in the life and by them he was always held in close fellowship. Of a generous, companionable disposition he attracted friends to him at once and their number is now legion. / After leaving school he entered the employ of the Hendrick Manufacturing company where he served in a responsible position for several years. Following this he became one of the force at the Delaware & Hudson general offices in this city and soon after was selected to fill the position of soliciting and freight agent for that company at Wilkes-Barre. He assumed those duties in November, 1887, and continued in that capacity till his death. / On March 13, 1889 he was united in marriage to Miss May Baker of this city who survives him. Mr. Manville had been accustomed to occasional severe spells of sickness and following one took an ocean voyage to repair his health. His stay in England was very beneficial but his constitution could not be said to be of the strongest. / About eight months ago he commenced to complain of a deep seated trouble—but only a few knew of his illness. On Wednesday last Mr. and Mrs. Manville went to New York for a short stay and while there Mr. Manville was attacked by a sinking spell. He consulted Dr. Allen McLane Hamilton who gave it as his opinion that he was suffering from valvular trouble of the heart. At the railroad station on Saturday last and on the train coming home he again had sinking spells and from that time on they were frequent till the end. Death came peacefully at 11:30 o'clock last night while the family were gathered about the bedside. / An autopsy performed by Dr. Bailey of this city and Dr. Burnett of Scranton this morning revealed the fact that both the liver and the heart had been affected. Deceased was a member of Trinity Episcopal church this city and in a social way was numbered among the members of the Westmoreland club of Wilkes-Barre. The funeral services over the remains will take place at Trinity church tomorrow afternoon at 4 o'clock. The remains will be taken to Troy for interment leaving this city on Thursday morning on the 6:25 o'clock train." (clipping in a Gritman scrapbook, dated Tuesday, April 13, 1897) The following clipping is given immediately following the preceding in the Gritman scrapbook: "The body remained in the church all night and from five o'clock to nine the hours during which the casket was open there was a steady stream of people going into the church to take a last look at the features of the man whom they had known so well in life. At nine o'clock another short service was held for the benefit of the family alone. / Among the prominent out-of-town people at the funeral were Mr. and Mrs. David Zeiley, Jr., John D. Zeiley, D. Gilbert Hollis, Brooklyn; Miss Clara Manville, Edward J. Manville, Whitehall, N. Y., Mrs. Edward Ambuhl, Ghent, N. Y., John G. Law, New York city; Miss Haff, Mont Clair, N. J., Mr. and Mrs. G. L. Dickson, George Jermyn, James H. Torrey, city solicitor, C. S. Weston, D. & H land agent, E. W. Drinker, Lehigh division freight agent, J. P. Dickson, Delaware & Hudson general freight agent, W. G. Liddle, Scranton; J. B. Knecht, chief freight clerk, James Brady, yard master, J. F. Abbott, I. H. Strauss, Pennsylvania agent, A Newbury, Pennsylvania train master, Wilkes-Barre; G. W. Lane, William Muir, H. J. Congor, Honesdale; W. Hickok, agent Plymouth Junction. /This morning the casket was taken from the church and placed upon the Saratoga express; for removal to Troy, N. Y. Superintendent C. R. Manville, Rev. Charles Lee, F. E. Dennis, N. L. Moon of this city and W. M. Dickson of

Scranton, occupied a special car attached to the train and accompanied the remains to their destination. At Troy the body will be incinerated. The gentlemen who acted as pallbearers both yesterday afternoon and this morning were: L. A. Bassett, N. L. Moon, J. H. Orchard, W. B. Gritman, H. C. Butler, F. E. Dennis, Charles Orchard and W. M. Dickson, of Scranton." (*Carbondale Leader*, April 13, 1897)

Mrs. Rollin Manville:

Mrs. Manville and her two children will sail for Europe, June 1881:

"Mrs. R. Manville, with her daughter Miss Florence Manville, and son, C. R. Manville, will sail from New York tomorrow, on the steamship *Egypt*, for Europe. The trip is made principally for the benefit of Mrs. Manville's health." (*Carbondale Leader*, June 3, 1881, p. 4)

"Mrs. R. Manville, her son C. R. Manville and daughter Mrs. Florence Manville sailed from New York for Europe on the steamer *Egypt* of the National Line, on Thursday of last week, to be absent about two months." (*Carbondale Advance*, June 11, 1881, p. 3)

"Mrs. R. Manville and party arrived home from their European trip last Tuesday. They are in excellent health, and return with many delightful memories of the journey. A cordial greeting was tendered them by their many friends." (*Carbondale Leader*, September 30, 1881, p. 4)

Mrs. Manville sailed on Saturday for four-month European tour:

"**GONE TO EUROPE.** / Mrs. W. A. Manville sailed from New York on Saturday by the *Minnehah* for Cowes, England. Her tour of Europe will cover nearly four months and will extend from Norway to the southern part of Italy. Stops will be made at the principal cities including Berlin, Paris, Venice, Rome and London. The tour also includes a coaching trip through England." (clipping in Gritman scrapbook, dated Friday, June 13, 1902)

End of Manville Excursus

N. H. Hiller's inaccurate summary description of 1859 Configuration:

"In 1857, the increasing traffic on the road demanding a new method of transportation, the old lines were discarded and an entirely new series of planes built. These consisted of eight in number from Carbondale to the summit, replacing the five formerly used, and all operated by steam plants supplied by the Dickson works. From Summit to Waymart, (the same three descending planes were retained with the addition of one more to make the grade lighter and instead of the loaded cars descending pulling up the empties, a series of three new planes were constructed, one being the longest on the gravity, some 2,630 feet in length.) Steam equipment was used on these upbound planes and the fan brakes were used to check the down trips."

Corrections to N. H. Hiller's summary:

In the 1845 roadbed, there were only two planes down from Farview to Waymart, Nos. 6 and 7. In the 1859 roadbed, there were three planes down from Farview to Waymart, Nos. 9, 10, and 11. The three uphill planes, Nos. 18, 19, and 20, were not put in until the 1868 revisions. In 1868, as well, the downhill planes from Farview to Waymart were revised: instead of three (9, 10, and 11), there were now four (9, 10, 11, 12).

Hiller's Very Informative Description of the Equipment in the Head Houses and on the Planes, in 1857:

"On the railway of 1857, the equipment was up-to-date in every respect. The boilers, cylindrical in type, were suspended from I-beams in batteries of three to each furnace. Each boiler was thirty-three inches in diameter and fifty feet long, giving some 260 square feet of heating surface. On the loaded planes there were three batteries of boilers and on the light planes two batteries. The engines used were of the two-cylinder slide-valve type with cranks mounted at ninety degrees and with Stephenson reversing mechanism. For the loaded planes, these engines were eighteen inch diameter of cylinder and the light plane engines were fourteen inch diameter and thirty-six inch stroke. The speed of the planes was calculated to be about twenty-five miles an hour and with hoisting drums eleven feet in diameter and fifty-three to 113 gear ratio, this meant an engine speed of 135 revolutions a minute or equivalent to a piston speed of 810 feet a minute, which was high for that period. The hoisting drums were constructed out of three iron wheels put on the hoisting shaft at a distance of about three feet apart, so that the total width remained six feet. On the top of these wheels and connecting them were a number of oak beams, four inches by four, and these formed the outside of the cylindrical drum as it then stood. A sort of lathe was then built so that the cutting tool was mounted in front of this cylinder and a screw thread with a pitch of 1.4 inches was cut to hold the cable in place. By use of this simple device, the drums as they wore out, could be rebuilt in a head house, as the engine houses at the heads of the planes were called, in a single day and with a few special tools. The cables were first of iron wire and later of steel wire, one and one-quarter inches in diameter. The boilers utilized natural draft from a sixty foot brick chimney and burned the smaller sizes of hard coal in grates six by nine feet, one grate for each battery of three boilers."

Confusing Description of 1859 Configuration by a Honesdale Journalist:

"The Delaware and Hudson Canal Company. / This Company are making large improvements on their Railroad, for the purpose of increasing the capacity of the works. The improvement consists in making two double tracks [I think that this should just say "two tracks" or "double tracks"] on the section extending from Carbondale over the mountain to Waymart, a distance of six miles. All four of the new tracks_[I think that this should say: "The new tracks. . ."] are so constructed as to avoid a level on the summit, dispensing entirely with horse power.[This journalist does not appear to know about the return planes on Planes Nos. 7 and 8.] The double track extending from the foot of the mountain at Waymart to the head of the Canal in

this Borough (a distance of ten miles) is fully competent to perform all the business that can be done by both double tracks [I think this should say: “by both tracks. . .] on the mountain section.—It will be seen, therefore, that these improvements, when finished will enable the Company, to increase the amount of coal forwarded to double the present bulk.—*Honesdale Democrat*.” (*Carbondale Advance*, June 18, 1857, p. 2)

Loaded Track, Planes 1-8, the Same in 1859 and 1868 Configurations:

The loaded track, Planes 1-8, that was installed in 1859 from Carbondale to the top of the mountain at Farview was largely unchanged from 1859 to the closing of the road at the end of the nineteenth century. The light track that was installed in 1859 from the head of No. 9 back to the floor of the Lackawanna Valley was SIGNIFICANTLY modified in 1866 (and then stayed the same to the end of the century). In 1859, there were three planes down to Waymart (Nos. 9-11); in 1866, there were four planes down (Nos. 9-12). Many of the maps shown in this unit show much data that we will talk about in later units in this work.

5905

Charles Pemberton Wurts

The 1859 configuration was established, 1856-1858, under the direction of Charles Pemberton Wurts (nephew of Maurice and William Wurts; nephew and adopted son of John Wurts). C. P. Wurts was named Chief Engineer of the D&H in 1853, and remained such until 1865. Given the importance of C. P. Wurts in the history of the D&H, it is well to review here some of the primary facts about the man.

C. P. Wurts was born in 1824 in Montville, NJ, and began working for the D&H at age 19. He died in 1892. He was a son of George Wurts and Abigail Petit, and the nephew and adopted son of his Uncle John Wurts and Aunt Martha Potts Haskins. He married Laura Jay in 1854. She was a granddaughter of Peter Augustus Jay and the great granddaughter of Supreme Court justice and diplomat John Jay. They had 6 children.

In 1864, C. P. Wurts played a key role in “adjusting the line of the Jefferson Railroad” between Carbondale and Lanesboro, and in “locating the proposed Railroad” up the Lackawanna. This we know from two notices that were published in the *Carbondale Advance* in 1864:

“We learn that C. P. WURTS, Esq., of this city, at the head of a corps of Engineers, is now engaged in adjusting the line of the Jefferson Railroad.” (*Carbondale Advance*, May 28, 1864, p. 2) Note: Volume XI in this series will focus on the Jefferson Railroad.

“C. P. WURTS, Esq., Chief Engineer, with a corps of assistants, is now engaged in locating the proposed Railroad up the Lackawanna.” (*Carbondale Advance*, July 23, 1864, p. 2)
“Proposed Railroad up the Lackawanna”—up the Lackawanna towards Lanesboro?

About 1856, Charles Pemberton Wurts and Maurice Wurts (both sons of George Wurts and Abigail Pettitt, which made them nephews of the D&H founders) plus members of the Dickson and Pierson families moved to Scranton and erected a foundry and machine shop, known as Dickson & Co. (manufacture and repair of mining machinery—later Dickson Manufacturing Company). [Biography of Joseph Curtis Platt, *PABRLC*, pp. 937-942, says that the Dickson Manufacturing Company was organized March 20, 1862, with Mr. Platt as one of the directors, a position he held until his death.]

Upon the death in 1871 of his Aunt Martha Potts Haskins Wurts (widow of former D&H Canal president, John Wurts; elected third president of the D&H on April 13, 1831, an office which he held until 1858) in 1861, C. P. Wurts was named the main beneficiary of her considerable estate, which caused some friction in the family.

On April 20, 1852, C. P. Wurts became the owner of the house and grounds that were the property of Dr. Thomas Sweet, who came to Carbondale in 1828, and was the first resident physician in Carbondale. C. P. Wurts had a new house built on that property. That new house and property were conveyed from C. P. Wurts to E. E. Hendrick on 06-16-1865. C. P. Wurts and his family moved to New Haven, CT in the mid 1870s.

In 1881, C. P. Wurts fell seriously ill:

“C. P. Wurts, Esq, former R. R. Supt. here, was taken seriously ill at the St. Charles Hotel in Scranton, about two weeks since. Mr. G. L. Dickson learning of it had him conveyed to his residence, where by careful nursing he recovered so as to be able to return home on Saturday last.” (*Carbondale Advance*, June 11, 1881, p. 3)

C. P. Wurts and his wife Laura and some of their 6 children traveled to and throughout Europe from 1884 through 1886.

C. P. Wurts died on August 11, 1892. Here is his obituary:

“CHARLES P. WURTS DEAD. / He Was Formerly Superintendent of the D. & H. and Lived Here. / Yesterday’s New York Tribune contained a brief notice of the death of Charles Pemberton Wurts, which occurred at Bar Harbor, Maine, August 11th in the sixty-ninth year of his age. / Just half a century ago Mr. Wurts came to this city [Carbondale] and for a time was a member of the Delaware & Hudson Canal company’s engineer corps. He was the nephew and adopted son of John Wurts, at that time president of the Delaware & Hudson Canal company. Soon after his arrival here he was appointed assistant to James Archbald, the general superintendent, serving in that capacity until Mr. Archbald removed to Scranton, when Mr. Wurts assumed entire charge of the company’s affairs in this locality. It was under his administration that the present gravity railroad was constructed and many changes made in the methods of transporting the product of the mines from the valley of the Lackawanna to the canal which at that time was the company’s only means of reaching New York city and tidewater. [emphasis added] In those days Mr. Wurts was general manager of all the company’s business, and to him all differences were referred. The first great strike at the company’s collieries took

place in 1857, when the miners made a demand for an advance of two and one-half cents per ton. The regular price for mining at that time was thirty-five cents. After several weeks of idleness the miners resumed work upon the promise of Mr. Wurts that the advance asked for would be given them when operations were resumed. This was the one condition fixed by Superintendent Wurts, the men took him at his word and had no reason to regret it. / Many of the old residents will remember how the miners congregated every afternoon on the hill east of Park street to talk over their differences and it was then Mr. Wurts met them and effected the settlement on which operations at the mines were resumed. / During his residence here Mr. Wurts built the house and reclaimed the grounds now owned and occupied by E. E. Hendrick. [Deed from Sweet to Wurts on 04-20-1852 (Dr. Thomas Sweet, who came to Carbondale in 1828, was the first resident physician of Carbondale.); from Wurts to Hendrick on 06-16-1865]./ From that year 1860 to 1863 Mr. Wurts was in partnership with W. H. Richmond in the Elk Hill colliery at Dickson City and about the same period he was associated with Edward Jones, Lewis Pughe, and Abel Barker in developing the mines at Olyphant. He was also identified with other industries in this locality and was known as a progressive business man of this community. He took an interest in local affairs and was always ready to assist in any movement to better the condition of the men in the employ of the Delaware & Hudson Canal company. / Mr. Wurts continued in charge of the Delaware & Hudson interests until 1864, when he was succeeded by Thomas Dickson. [emphasis added] Upon his retirement Mr. Wurts went abroad with his family and spent several years in Europe. For the past fifteen years he has been a resident of New Haven, Conn. / Of the men who were actively engaged in coal operations during the years Mr. Wurts was general superintendent of the chief corporation of the Lackawanna valley, few are alive at present. Among the first operators who had contracts to ship coal over the Delaware & Hudson lines were William Brennan, J. Offerman, J. C. Chittenden, A. Eaton, George and John Simpson, Edward Jones, Lewis Pughe, Abel Barker, W. H. Richmond, J. J. Albright, G. L. Dickson, John Jermyn. Of this number only four are living and only two, Messrs. Richmond and Jermyn, are actively engaged in the coal business.” (*Carbondale Leader*, August 16, 1892, p. 4)

Detached light levels on Planes 7 and 8 in 1859:

In 1859, all planes and levels, except Planes Nos. 13-17 and the Ten-mile level, were double-tracked, with both tracks, except on Planes 7 and 8, located side by side on the same roadbed. As in 1845, the 1859 loaded levels were graded so that the loaded cars went from the head of one plane to the foot of the next by gravity (the levels were graded to the East). On the light levels on Planes 1-6, in 1845, the empty cars were moved East to West by horses. On Planes 1-6, in 1859, the empty cars moved East to West by gravity/levels inclined East to West. To move the empty cars, East-West on the top of the Moosic Mountain in 1859 (from the head of Plane No. 9 to the head of Plane No. 7), the loaded and light levels on Planes 7 and 8 were partially detached from each other and ran on different roadbeds, with the light levels on both of these planes being graded to make maximum gravity movement to the West possible. When gravity movement to the West was no longer possible on these two levels, "return planes" were installed in these two levels (No. 8 and No. 7) to get the empty cars back to the head of Plane No. 8 and then Plane No. 7 for movement down the mountain, through Planes Nos. 6-1, to the Lackawanna Valley.

Note on double tracks in 1868:

In the 1868 configuration, with the completely separate loaded and light tracks, there was no longer a need for the double tracks and Planes 3-8, and the second track on each of those six planes was ultimately removed. The double tracks were retained on Planes 1-2 because of the complex needs of the D&H in that area (cripple car track).

Summit Level note:

The Summit Level in 1829 extended from the head of Plane No. 5 to the head of Plane No. 6, which means that the Summit Level in 1829 was Level No. 5. In 1845, the Summit Level was the loaded level between the head of Plane No. 5 and the head of Plane No. 6. The Summit Level in 1859 and in 1868 was the loaded car level on Plane No. 8, between the head of Plane No. 8 and the head of Plane No. 9.

5906

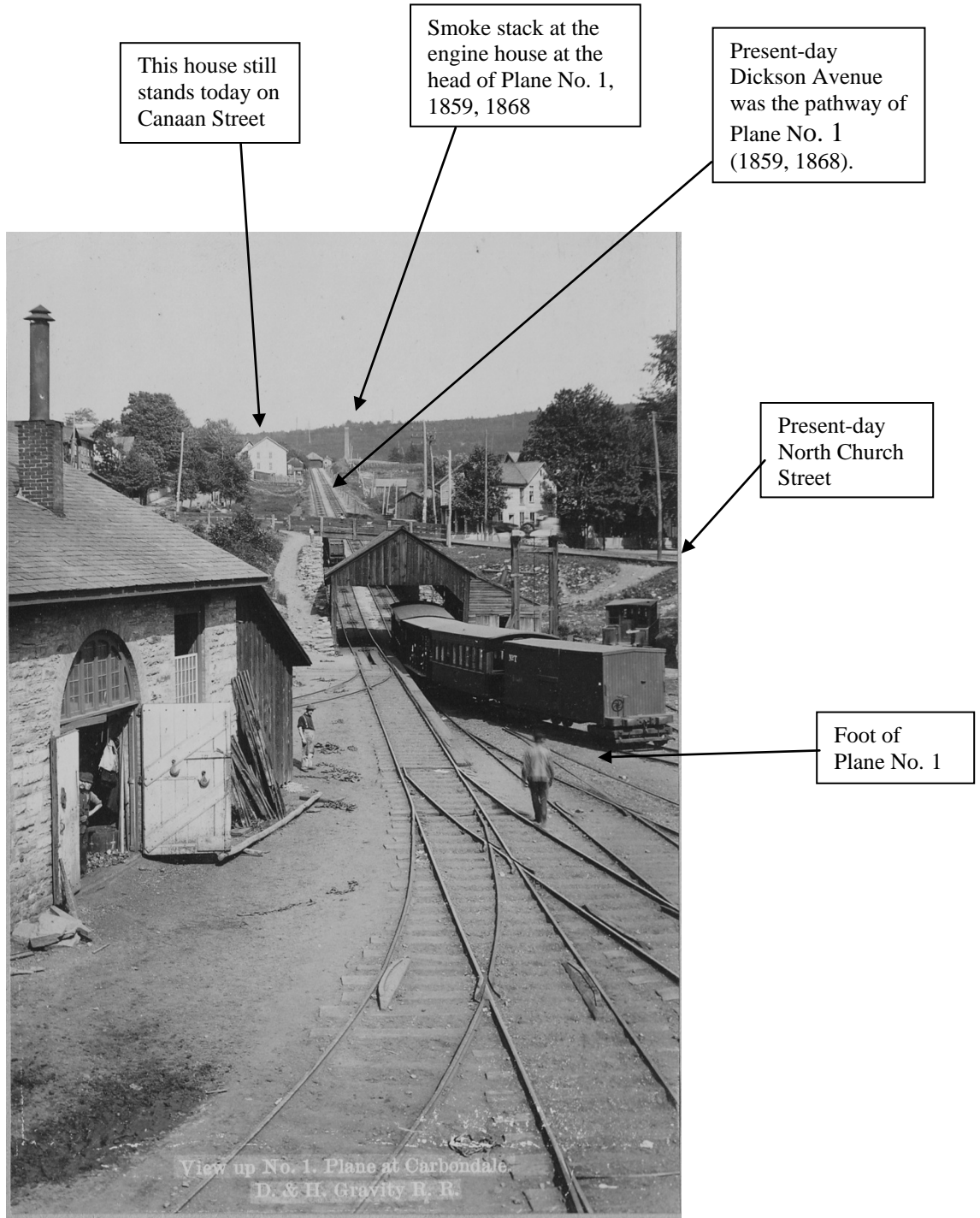
Plane No. 1

--1,479 feet long (rise 119.39); the longest plane in system

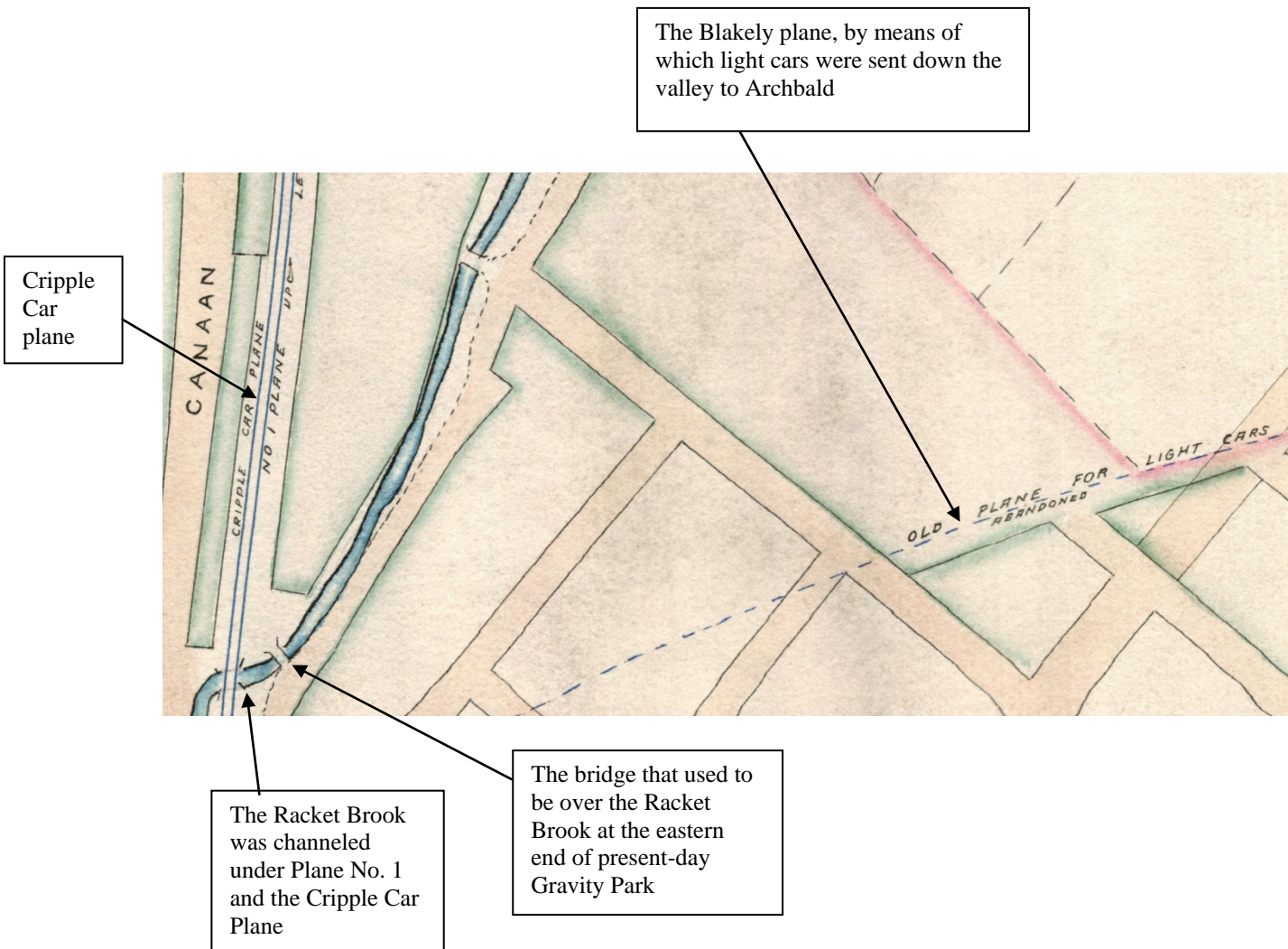
--Level 1: 1,648 feet long (descent 16.07 feet)

“Altitudes Again. / We are indebted to O. D. Shepherd, Esq. Chief Engineer of the D. & H. C. Co. of this city, for the following elevations, omitting fractions, above tide water, of various points on the Gravity R. R. of the Company: Foot of No. 1 Plane, Carbondale, 1074 ft. (*Carbondale Advance*, September 17, 1870, p. 3)

View up No. 1 Plane at Carbondale D. & H. Gravity R. R. from Orig. Photo Souvenir of Del. & Hud. Gravity Road. Published by L. Hensel, Hawley, PA. The passenger train shown in this photograph by Hensel was not on the line in 1859. Note the engine house and smokestack at the head of Plane No. 1, which went up the hill more or less on present-day Dickson Avenue.



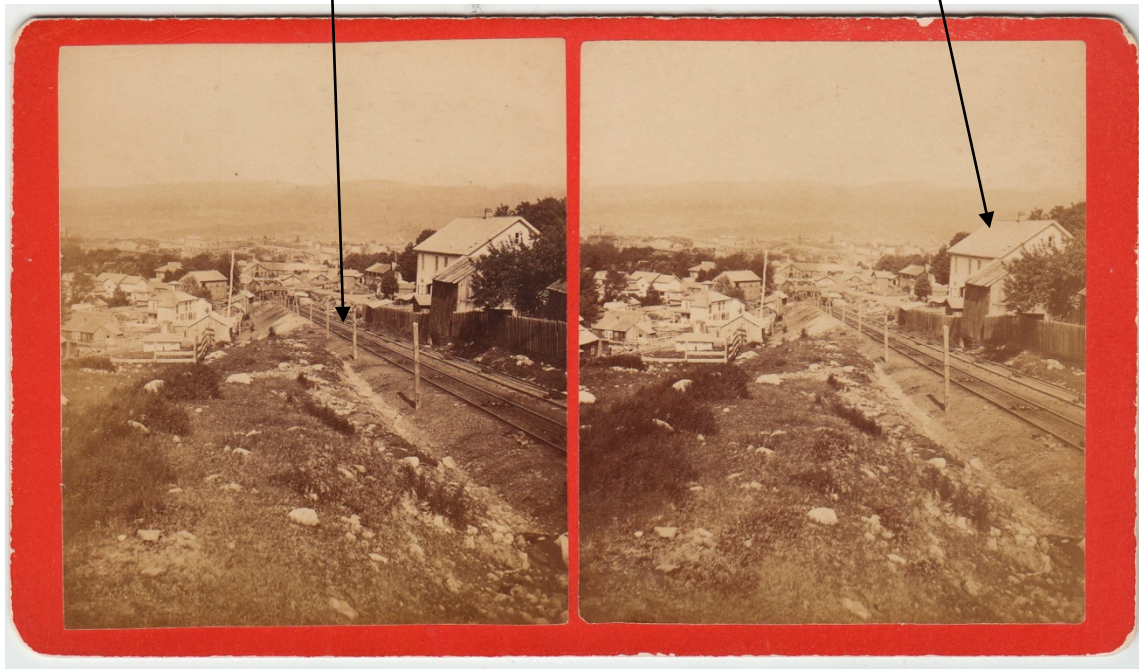
Plane No. 1 (“New No. 1 Plane”) in the 1859 and 1868 configurations and its location in relation to the placement of “Old No. 1 Plane” in the 1829 and 1845 configurations can be seen on the detail given below from the map in *D&H Deeds Luzerne I*, p. 12, for the deed dated July 28, 1825, between John Wurtz & others, Trustees, and The Delaware & Hudson Canal Company. The deed is on pages 1-6 of that deed book.



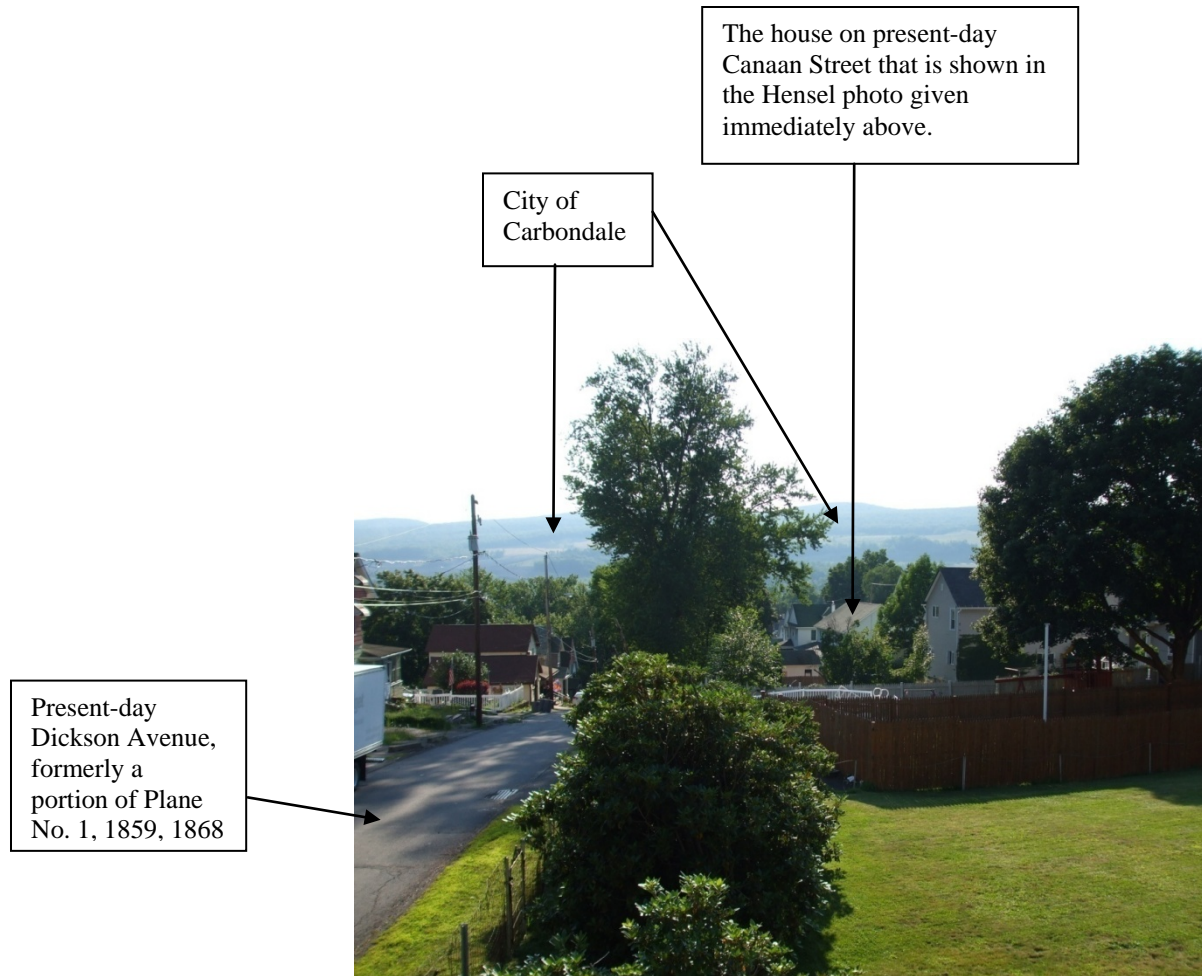
Here is a view looking down Plane No. 1 by Hensel. Note the poles on the side of the plane which carried the communications/signal wire up the plane. Hensel stereocard No. 1145: *View of Carbondale, Seen from No. 1 Plane*. The large building seen on the right in this photograph still stands today. We see here the back of the building; the front is on present-day Canaan Street.

Signal wire along the plane for communication between foot and head of plane

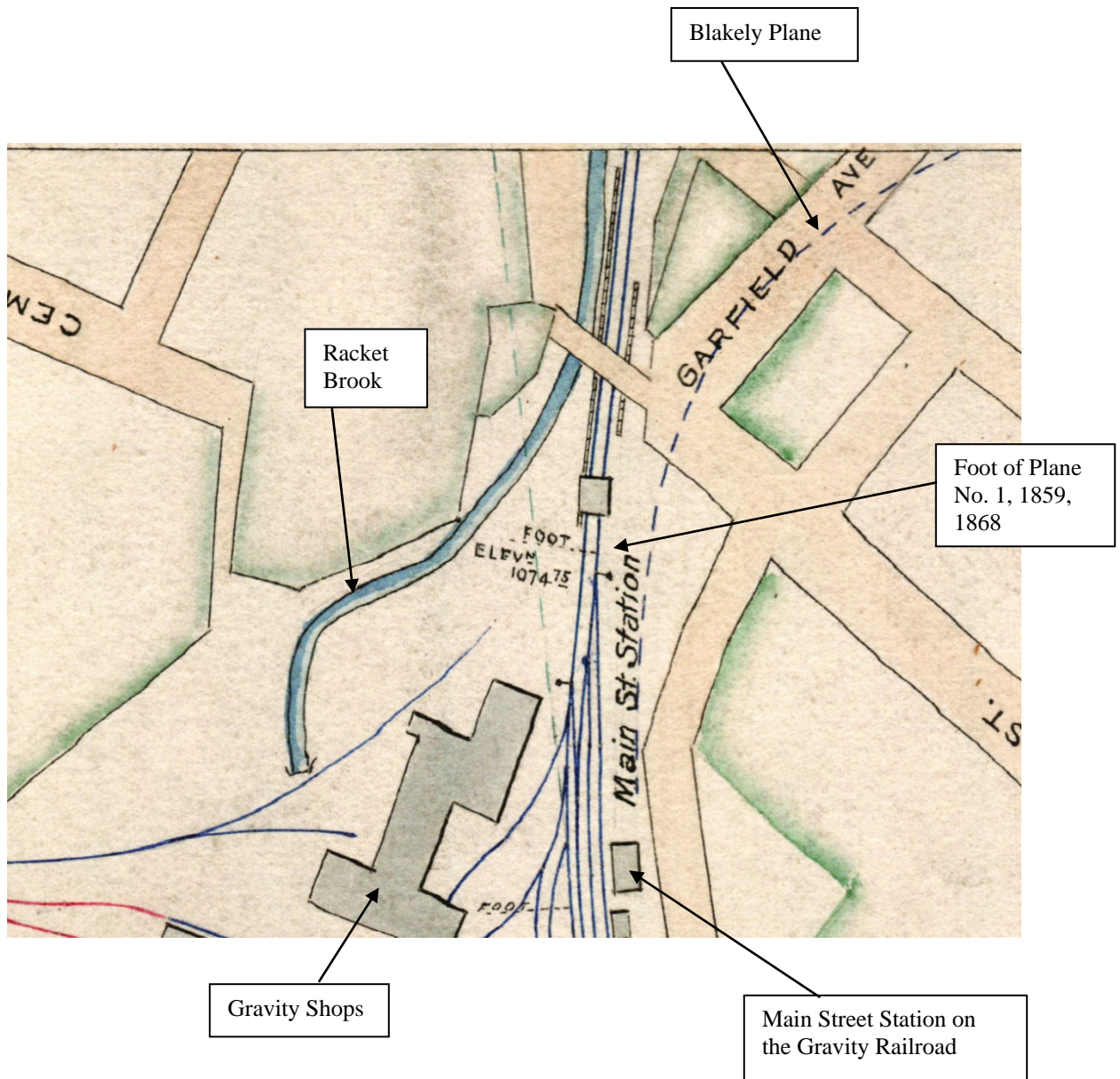
This house still stands in this same position, with frontage on Canaan Street



In the photo below taken by John Buberniak on August 1, 2008, as he stood in the back yard of the Buberniak house at 46 Canaan Street, the building on the far right in the photograph given above can be seen. The street on the left in this photo is present-day Dickson Avenue, up which Plane No. 1 ascended the hill.



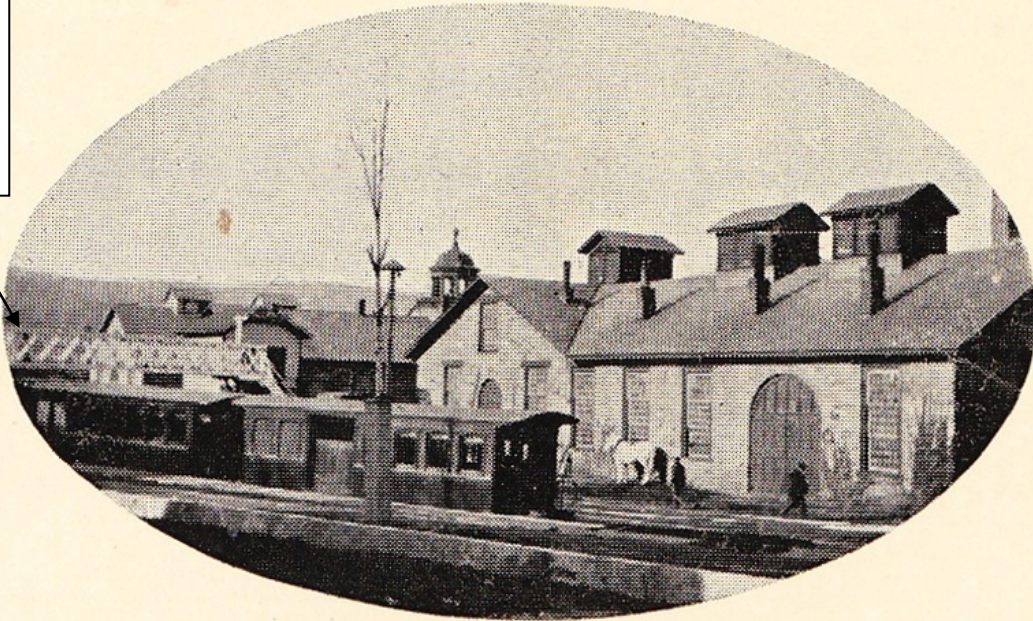
From the Gravity Railroad map volume:



Plane No. 1, Gravity R. R., *Passenger and Freight Stations Delaware and Hudson, The Delaware and Hudson Company Board of Managers Inspection of Lines, June 7th to June 10th, 1928, p. 37:*

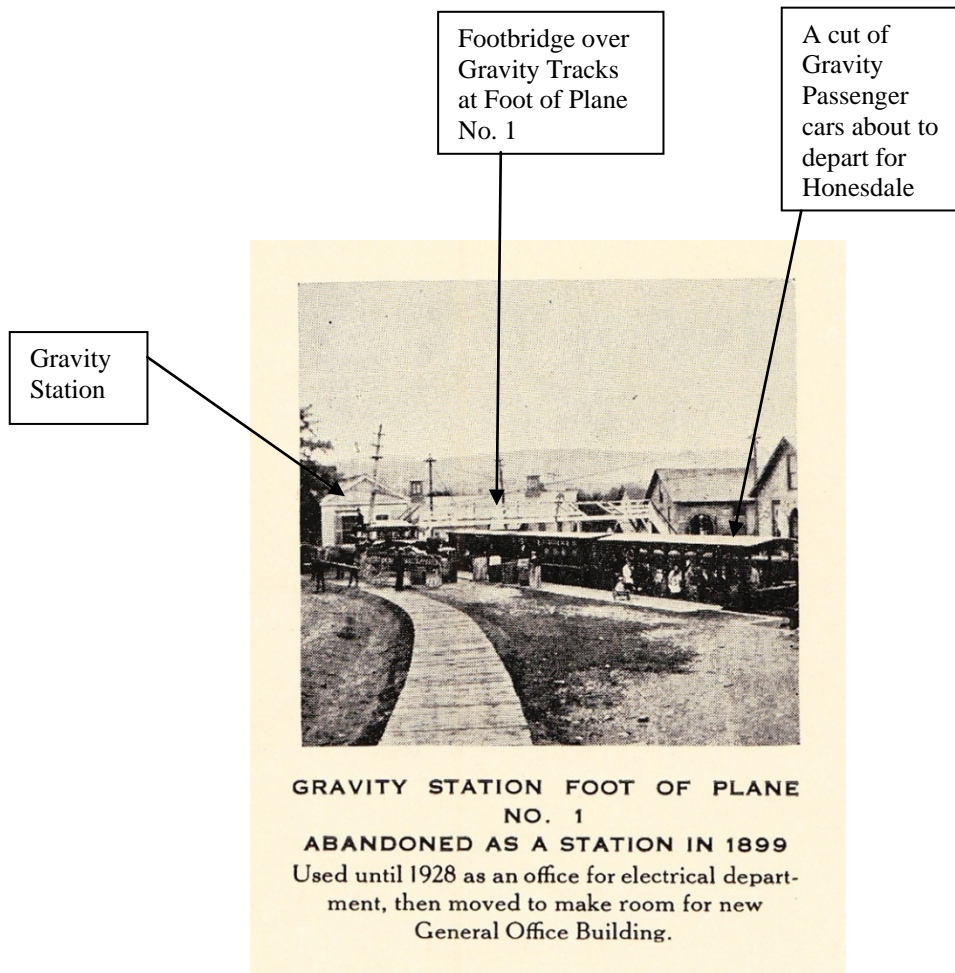
Foot of Plane No. 1, with Gravity Shops in background:

Pedestrian
bridge over
the Gravity
tracks at the
foot of Plane
No. 1



PLANE NO. 1, GRAVITY R. R.

Gravity Station Foot of Plane No. 1, Passenger and Freight Stations Delaware and Hudson,
The Delaware and Hudson Company Board of Managers Inspection of Lines, June 7th to June
10th, 1928, p. 37:



Re-built bridge, new planks, 1874:

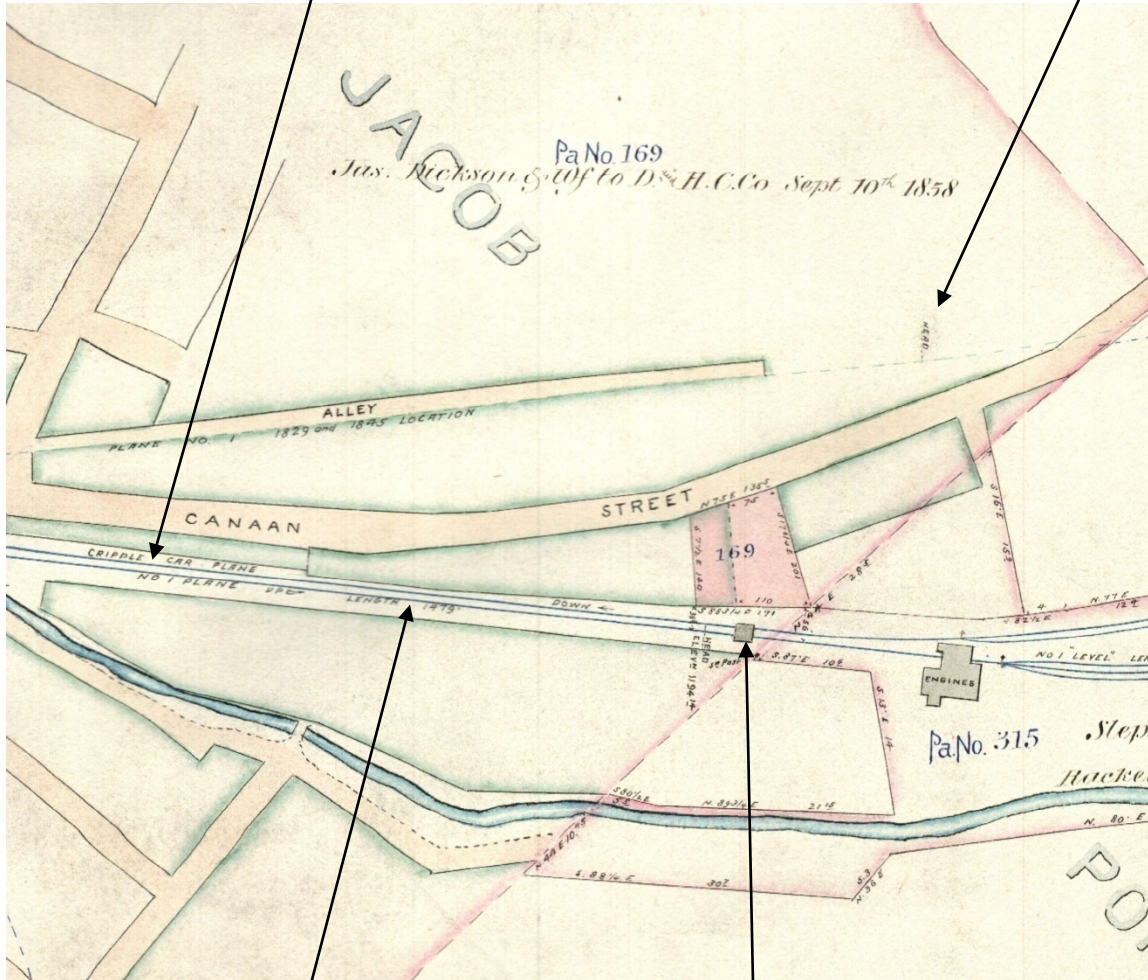
“The Company has lately rebuilt the bridge over the gravity road near the foot of No. 1, and also newly planked the sidewalk in that vicinity. (*Carbondale Leader*, August 22, 1874, p. 3)

Note the three very interesting lines of text at the close of the caption given above: "[Gravity Station at Foot of Plane No. 1] Used until 1928 as an office for electrical department, then moved to make room for new General Office Building."

The engine house at the head of Plane No. 1 can be seen in the following detail from the 1895 Gravity Railroad map volume. Note that “Plane No. 1 1829 and 1845 Location” can also be seen on this map, as it ascends the “alley” on the north side of present-day Canaan Street. That alley is presently named "Sage Court."

Cripple Car track on Plane No. 1. We'll learn more about this track in section 6809 of Volume IV (the 1868 Configuration) in this series.

Head of Plane No. 1, 1829, 1845. The plane went up the alley (Sage Court) to the left of Canaan Street as you go up the hill.



Plane No. 1, 1859, 1868

Head of Plane No. 1, 1859, 1868

Engineers at the head of Plane No. 1:

“William Ball was the first engineer at the head of No. 1 plane. Mr. [James] Goodfellow resigned his position [first superintendent of motive power on the Gravity road] after a few months, and Mr. Ball was made superintendent of motive power, which position he held until his death in 1859. Whitman Brown succeeded Mr. Ball as engineer at No. 1, who after a few years was transferred to Honesdale. John B. Smith next became engineer. When the road from Port Griffith to Hawley was built [the Pennsylvania Coal Company’s Gravity Railroad] Mr. [James] Archbald was made general superintendent. He selected from the D. & H. employees such men as he thought would be the best fitted for important positions on that road, and among them was John B. Smith. His upward grade from engineer, superintendent to president of the [Pennsylvania Coal] company, eminently testified to the foresight of Mr. Archbald in his selections. Thomas Shearer, who was for a long time fireman at No. 1, succeeded Mr. Smith, then followed Ulysses Campbell. James Vannan became engineer at No. 1 in 1866, and retained the position until the road was abandoned in 1899.” (*Joslin/Davies*)

More on William Ball from the obituary of his daughter, Jane Ball Gritman:

Jane Ball (born February 18, 1833, died February 24, 1909) was the daughter of William Ball and Mary Ann Smith. "Her father came here [Carbondale] from New York city with five other young men to erect the first engines on the gravity road. [He was the first engineer on Plane No. 1 when the Gravity Railroad opened on October 9, 1829.] He was the only one of the party to settle here permanently in the employ of the D. & H. and was soon given charge as master mechanic of all the stationary engines on this side of the mountain. [For many years, William Ball was the superintendent of motive power and the first master mechanic of the D. & H. Gravity Railroad.] Her [Jane Ball] grandparents were Captain Charles and Ruth Godfrey Smith. The former had charge of portions of the D. & H. work here for many years and built a section of the D. & H. canal before coming to Carbondale." ("Death of Mrs. P. C. Gritman Is Sad Loss to Community," *Carbondale Leader*, February 24, 1909)

Additional information of William Ball and the Gritmans in Volume I (the 1829 Configuration) in this series.

The engine house at the head of Plane No. 1 and the multi-tracked level from there to the foot of Plane No. 2 (1859, 1868) are seen in the detail given below from the 1895 Gravity Railroad map volume.

Level No. 2, 1829
configuration

Level No. 2, 1845
configuration

Multi-tracked Level No. 1,
1859, 1868

Engine House
at head of
Plane No. 1,
1859, 1868

Foot of Plane
No. 2, 1859,
1868

Bridge on
Level No. 1
over Racket
Brook

Light track, 1868; will be discussed in detail in volume on 1868 configuration

At a point about three fourths of the length of Level No. 1 (1859, 1868), the level crosses the Racket Brook, which can be seen on the map detail given immediately above. The abutment of the bridge over the Racket Brook at this point is seen in the photo given below, which was among a collection of photographs donated to the Carbondale Historical Society in April 2012 by William A. Collier, Somerset, NJ. These photographs of Carbondale, mostly of the 1922 flood, belonged to William A. Collier's father, Andrew A. Collier, who worked in the Coal Brook Colliery. This bridge was photographed, it seems safe to conclude, because it was damaged by the flood waters in 1922. This is the only photograph known to exist of this bridge.



Accidents, Facts about the Plane, Daily Life

McCabe boy in serious accident at the head of Plane No. 1:

"A lad named McCabe, about 12 years of age, met with a severe accident last Monday, by the cars at the head of No. 1, running over his legs—lacerating and fracturing them in a frightful manner. He was going to school,—and his mother cautioned him against going on the cars; so the accident is the result of disobedience of the commands of a mother, and reckless carelessness on the part of the boy. This is a deep affliction for widow McCabe, as about a year since her husband was killed, and now this accident to her oldest boy fills her cup with bitterness and woe." (*Carbondale Transcript and Lackawanna Journal*, July 11, 1856, p. 2)

Use of chloroform in surgical operations in Carbondale in 1856:

"Widow McCabe's boy, who had his limb fractured by the coal car running over him at No. 2, an account of which we gave last week, has his limb amputated above the knee, by Drs. Ottman and Burr. Chloroform was administered by Geo. W. Griswold, and the boy appeared to be unconscious of the operation, which is another evidence of the great benefit to be derived from the use of chloroform when skillfully administered in the alleviation of suffering. The amputation took place early this morning; fortunately the day is cool and the boy appears to be doing well." (*Carbondale Transcript and Lackawanna Journal*, July 18, 1856, p. 2)

Accident at the bridge over the turnpike road on the level on Plane No. 1:

"*Death by Accident.*—A man by the name of James Birmingham, about 50 years of age, residing near No. 5, came to his death on Monday last in the following manner. He undertook to overtake and to get on the hind end of a trip of cars while going up No. 1 plane, and reached them just as they were passing over the factory road, and fell through the open space between the rails, (unnoticed it is supposed by him) to the road below. He lived, in an unconscious state, four or five hours after the accident, when he breathed his last." (*Carbondale Advance*, February 6, 1858, p. 2)

The 42-foot high bridge over the turnpike road on the level on Plane No. 1 collapses:

"**Frightful Accident.** / At noon on Thursday of this week, our town was thrown into excitement by a distressing accident which occurred upon the new high work of the railroad between the Head House and the Foot of No. 1. A gravel train of seven cars, in charge of Henry Peck, while passing over, coming upon the bridge on stringers over the Turnpike, [emphasis added] crushed through, and with the conductor, Mr. Peck, were precipitated into the Turnpike below, a distance of forty-two feet. [emphasis added] Mr. Peck was covered up underneath the ruins of demolished cars and the gravel they contained but by strenuous effort was dug out in about twenty minutes. He was still alive, and though very badly injured, faint hopes are cherished of his recovery. / The immediate cause of the disaster is said to have been the breaking or giving way of an imperfect or partially welded iron rod, but it would seem that the strength and safety of such a structure, forty-two feet from the ground, ought not to depend upon a single iron rod. / Arrangements were immediately made for rebuilding the bridge, and it was completed in about 24 hours." (*Weekly Advance*, April 30, 1859, p. 2)

A large hog killed on Plane No. 1:

"On Wednesday, towards evening, as a trip of loaded cars was passing up No.1 plane, it ran over a large hog.—The result was that one of the cars was thrown from the track and dumped down the embankment, and the hog killed." (*Carbondale Advance*, June 16, 1860, p. 2)

Man killed trying to get on cars near No. 1 engine:

"FATAL ACCIDENT.—Truman Toles, a well-known citizen of this place, while passing over the Railroad to Waymart on Monday morning last, met his death in the following manner: In attempting to get on the cars near No. 1 Engine, he made a mis-step, fell under the cars, and was dragged a considerable distance, injuring him so severely that he lived but a short time after being extricated." (*Carbondale Advance*, May 2, 1863, p. 3)

Horse and carriage almost fall from the bridge on Plane No. 1:

Almost an accident at Plane 1: "ALMOST AN ACCIDENT.--On Monday afternoon, as two ladies were driving a horse and carriage, near the foot of No. 1 hill, the horse took fright while on the bridge, from the noise of the cars underneath, and kept backing until he backed entirely off the bridge and around the corner of it to the very edge of the railroad wall. Here was a dangerous predicament, and it seemed almost miraculous that the horse and carriage and its human freight were not all immediately utterly annihilated; but the horse, for some unknown reason, just then commenced going the other way, and thus saved all. It was indeed a narrow escape." (*Carbondale Advance*, September 12, 1863, p. 2)

Accident with an empty train on Plane No. 1:

"Thursday last was a hard day for outdoor work. A snow storm prevailed, but of itself would not have been severe, save for the high wind which accompanied it. In consequence of the wind, the air was kept almost constantly filled with snow, and the snow left where least needed. / The day seemed specially disastrous to our Passenger cars. In the morning an empty train got loose and run back, while being taken up No. 1 Plane, and the cars were badly shattered. The morning Passenger Train also, while on its way to Scranton, collided with a coal train at Olyphant, disabling two cars, but so far we have learned no passengers were seriously injured. Together it makes more of a chapter in the line of accidents that has occurred before during the season." (*Carbondale Advance*, Saturday, January 19, 1867, p. 2)

5907

Plane No. 2

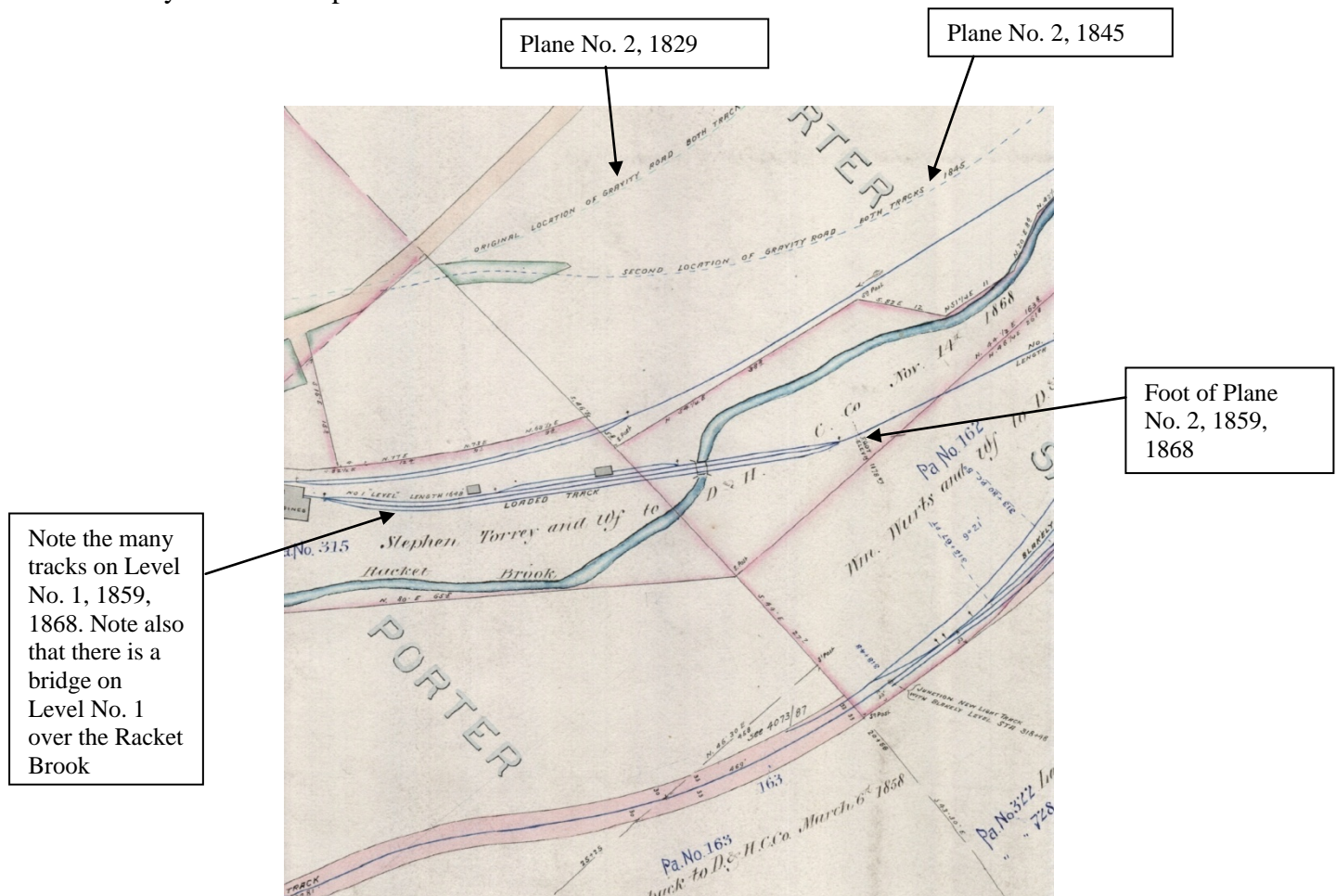
--Plane was 1,435 feet long (rise 105.95 feet)

--Level 2: 238 feet long (fall 1.51 feet)

Engineers at the head of Plane No. 2:

“At No. 2, the engineers were in the following order: Thomas Pillow, James Johnson, brother of Mrs. Davis on River street, Patrick Archbald, Perry R. Farrer and James Campbell, who had been in service there from 1858 to 1897, when he resigned and John Bate was appointed in his place.”
(*Joslin/Davies*)

The foot of Plane No. 2 (1859, 1868) can be seen in the detail given below from the 1895 Gravity Railroad map volume.



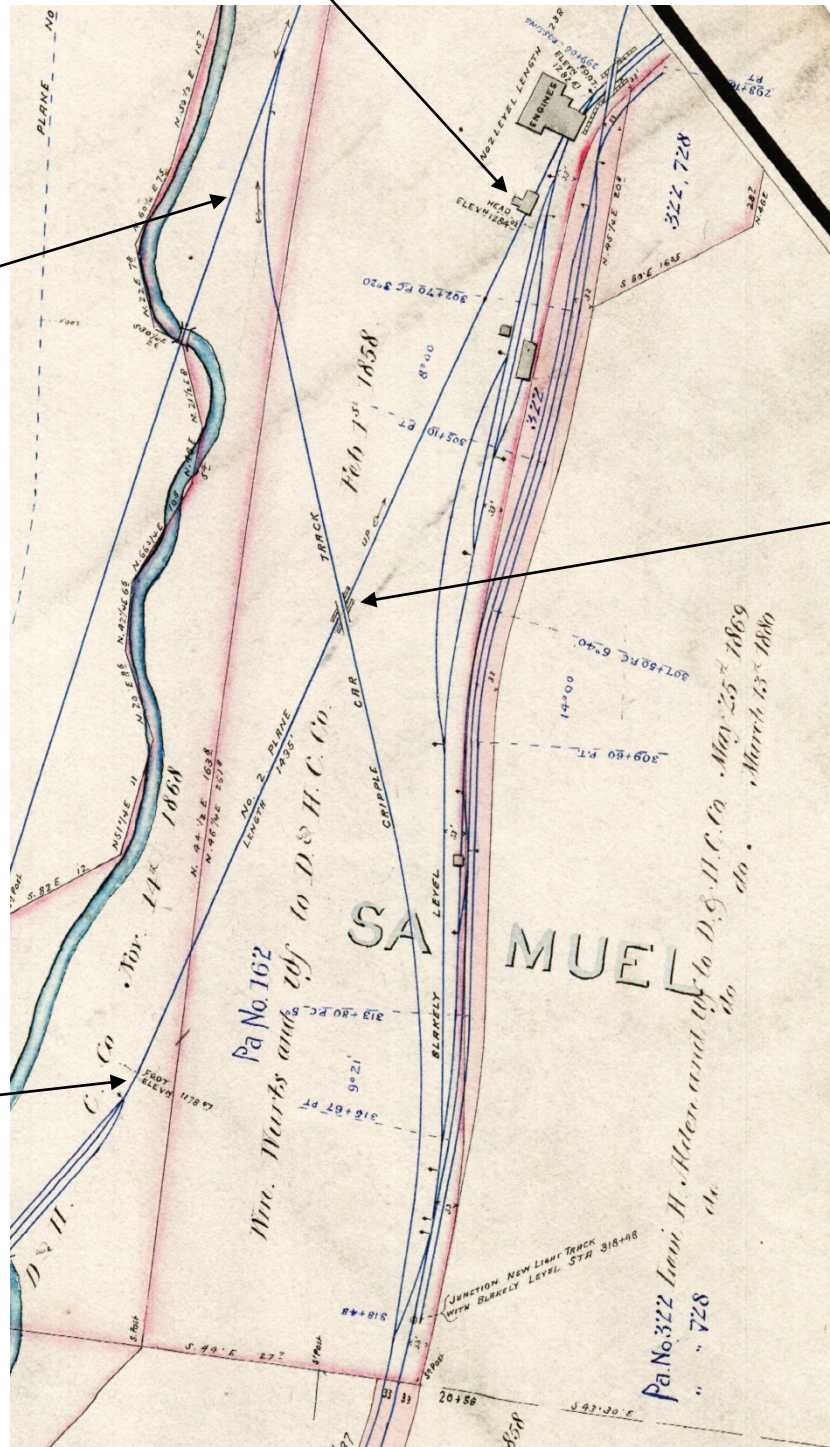
Plane No. 2 and the engine house at the head of the plane are seen in the detail given below from the 1895 Gravity Railroad map volume. There is a wealth of other Gravity Railroad data shown on the map below. Those data will be discussed in detail in forthcoming units of this work.

Head of Plane No. 2, 1859, 1868

Switchback for cars on cripple car track

Bridge over Plane No. 2 for Cripple Car track. The Cripple Car track will be discussed in Volume IV in this series.

Foot of Plane No. 2, 1859, 1868



Accidents, Facts about the Plane, Daily Life

Hubbard boy run over by cars near No. 2:

"A son of Mr. A. Hubbard, one of the overseers of the Company at this place, by accident was run over by the cars near No. 2 on Saturday last. One limb was badly crushed." (*Carbondale Advance*, August 30, 1862, p. 3)

Hurley boy killed near No. 2:

"A frightful accident occurred yesterday afternoon upon the Railroad, near No. 2. Frothingham Hurley, aged about 15 years, and son of Thomas Hurley, of this city, employed in running cars, by accident got between and under them, terribly crushing his limbs. Amputation was resorted to, but he survived but a few hours. / The case is a deeply afflicting one, and the sympathies of the community are strongly drawn toward the sorrowing and stricken family." (*Carbondale Advance*, Saturday, June 17, 1865, p. 2)

5908

Plane No. 3

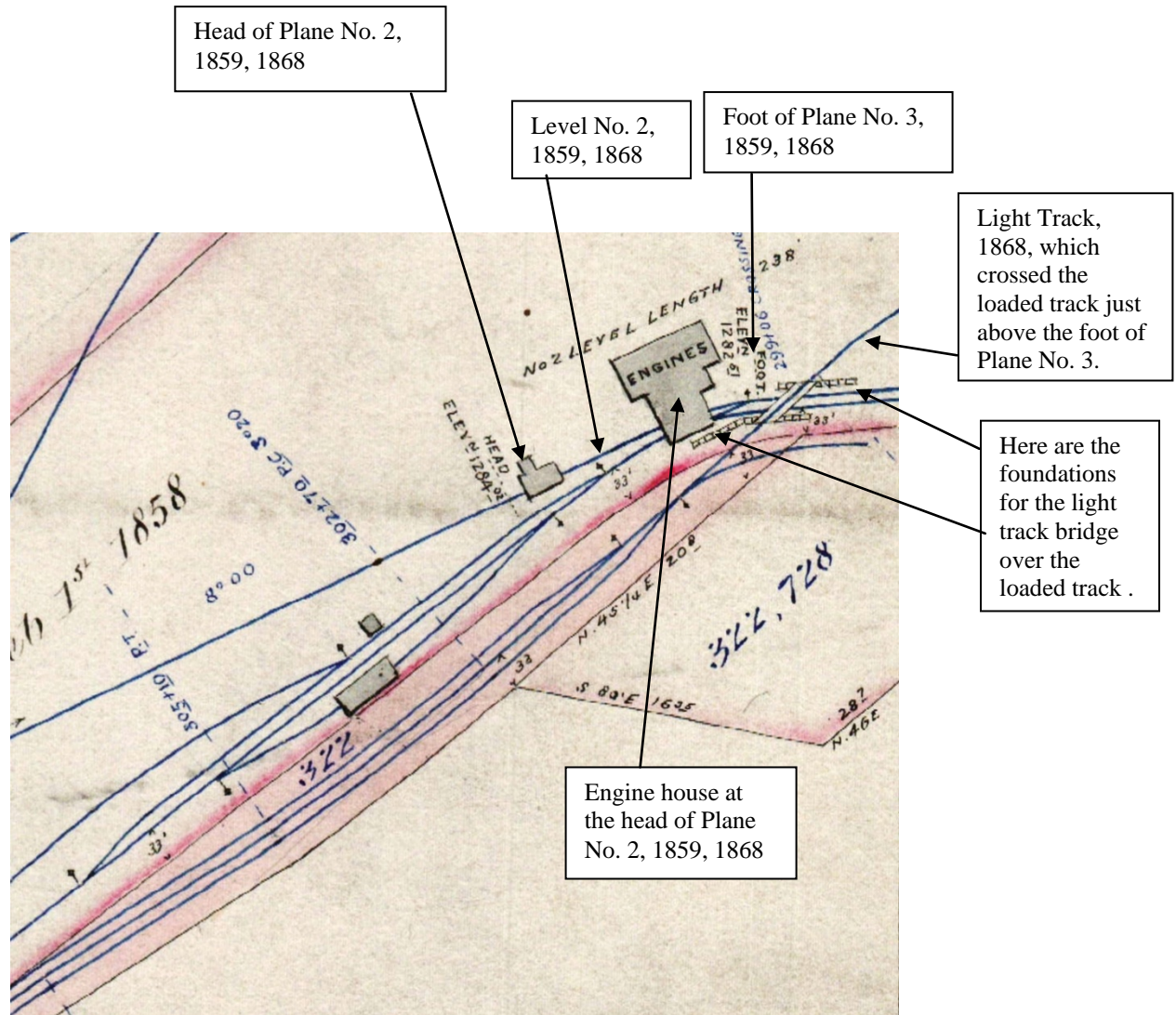
--1,310 feet long (rise 115.53 feet)

--Level: 556 feet long (fall 5.28 feet)

Engineers at the head of Plane No. 3:

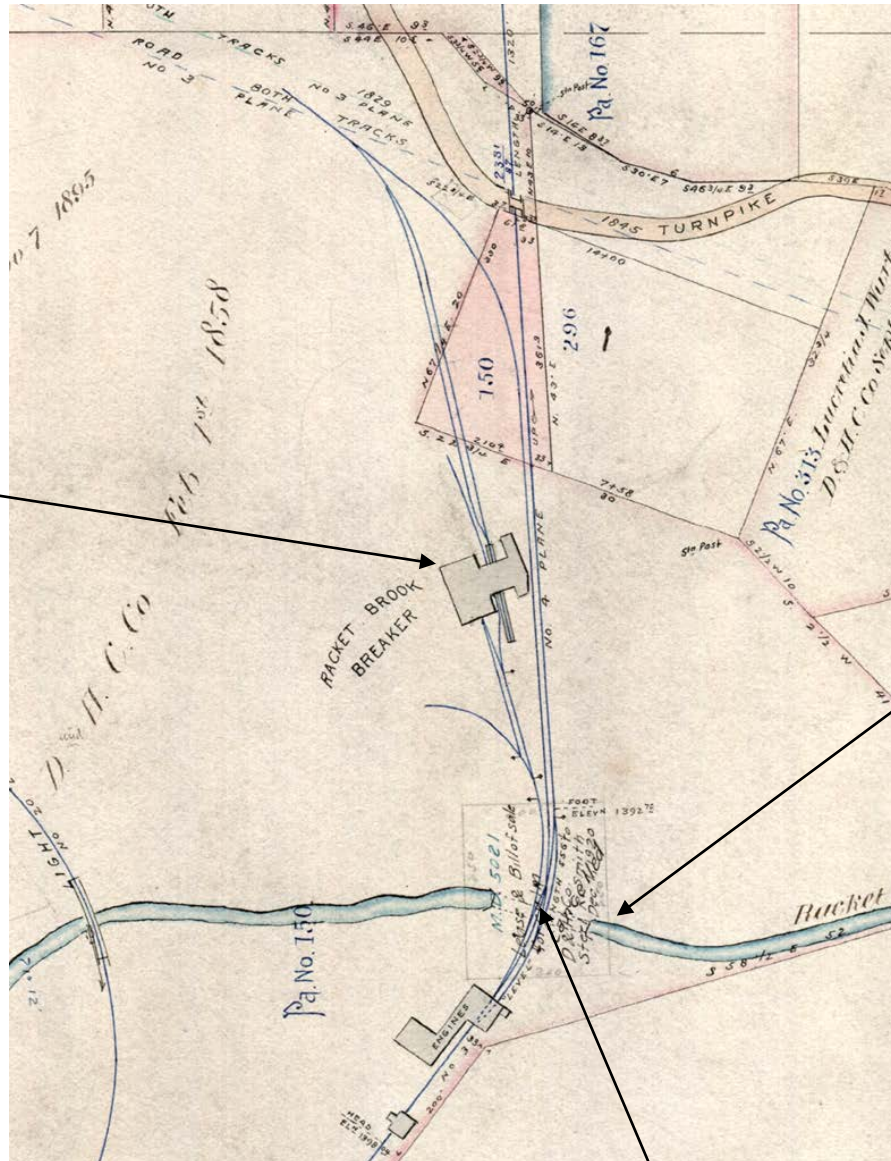
"No. 3 was manned first by Benjamin Franklin, followed in order by Edward Davis, John C. Davis, E. Y. Davis, Antoine Delafontaine. E. Y. Davis was transferred to No.28. P. J. Foster succeeded Delafontaine, transferred from No. 7. E. Y. Davis said there were two engineers of the name of John C. Davis, and for that reason his father omitted the C. in his name, yet in the records one not knowing where they were stationed can tell which one was meant in speaking of them." (*Joslin/Davies*)

No. 3 Engines and Plane: three views from 1895 Gravity Railroad map



Here is a closer look at the map detail given immediately above:

Racket Brook
Breaker at Plane
No. 4, 1859,
1868.

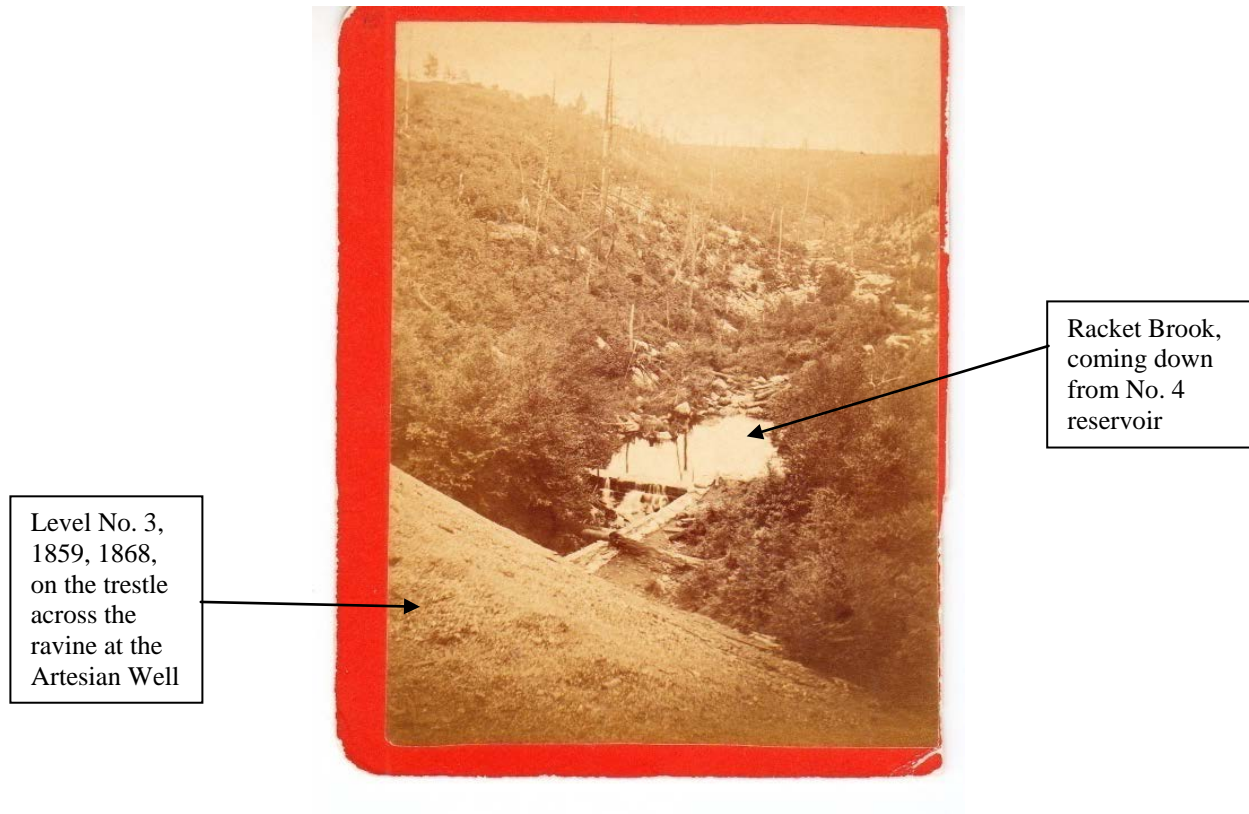


The Racket
Brook at the
bottom of the
ravine in the
Artesian Well
area

The location where Hensel
was standing when he took
the view shown below.

Hensel stereocard No. 1146: *View of Racket Brook Gap, seen from Railroad*

This view was taken on No. 3 level, which crossed the ravine at the Artesian Well site; this view is looking up the ravine.



Level between head of No. 3 and foot of No. 4: To construct this level, the entire ravine at Racket Brook had to be filled in. In order to do so, a draining system had to be installed for the Racket Brook to flow through. Here is a photo of that rounded arch/Romanesque stone drain at Racket Brook/the Artesian Well site:

The drainage tunnel under Level No. 3,
as it appears today.



In a great many places drains had to be installed under the roadbed of the Gravity Railroad. Here is one of those drains, post and lintel construction, not far from the Artesian Well site, on Level No. 20. Photo by the author.



Facts about the Plane, Daily Life, Accidents

William P. Jones injured in accident near No. 3:

“Accident.—An accident occurred up on the line of the new rail road near No. 3 on Tuesday last, by which a man by the name of Wm. P. Jones met with a comminuted fracture of the bones in one of his legs, and several others more or less injured. The occasion of the accident, as we learn was the breaking of the trestle work over which temporary rails were laid, for cars loaded with stone to run upon.” (*Carbondale Advance*, January 30, 1858, p. 2)

Dr. and Mrs. Dorr in accident near No. 3 engine house:

“SERIOUS ACCIDENT.—A serious accident occurred on Thursday afternoon of this week, on the turnpike to Honesdale, above two miles east of this place [Carbondale]. As Dr. Dorr, of Pittston, was going over the mountain in his carriage, accompanied by his wife, his horses took fright at the Railroad crossing near No.3 engine, and precipitated the carriage and occupants down the bank, injuring the Dr. severely. Mrs. Dorr was not as seriously hurt. The point where this accident occurred is considered unsafe with a horse unaccustomed to cars.” (*Carbondale Advance*, September 24, 1859, p. 3)

Two boys killed in accidents in June, 1860:

“Fatal Accidents. / Two unfortunate accidents have occurred upon the Railroad this week. On Tuesday afternoon JOHN JOYCE, aged about 16 years, employed about the Coal Breaker near No. 3 Plane [the Racket Brook Breaker near the foot of Plane No. 4], in riding up the line by accident got caught under the cars and was fatally injured. He died the same night. / On Wednesday afternoon a son of JOHN B. CAREY, aged about 10 years, was run over by the Cars, near the mines, and died almost instantly.” (*Carbondale Advance*, June 16, 1860, p. 2)

Thomas Murray struck by cars on Plane No. 3:

"SAD ACCIDENT. --A melancholy accident occurred on No. 3 Plane of the Railroad east of town on Saturday last. THOMAS MURRAY, aged about 20 years, son of Patrick Murray, Esq., one of the City Commissioners, and a Mr. HEALEY, who had recently arrived here, were struck by the cars on No. 3 Plane, and both frightfully injured. Murray died about 11 o'clock on Sunday morning.--Mr. Henry S. Weed, who had recently returned unhurt from a nine months' service in the army was working with Mr. Murray on the track, and but narrowly escaped." (*Carbondale Advance*, August 29, 1863, p. 2)

5909

Plane No. 4

1859: Racket Brook Breaker, one of the earliest breakers in the area: built in 1856; rebuilt in 1868

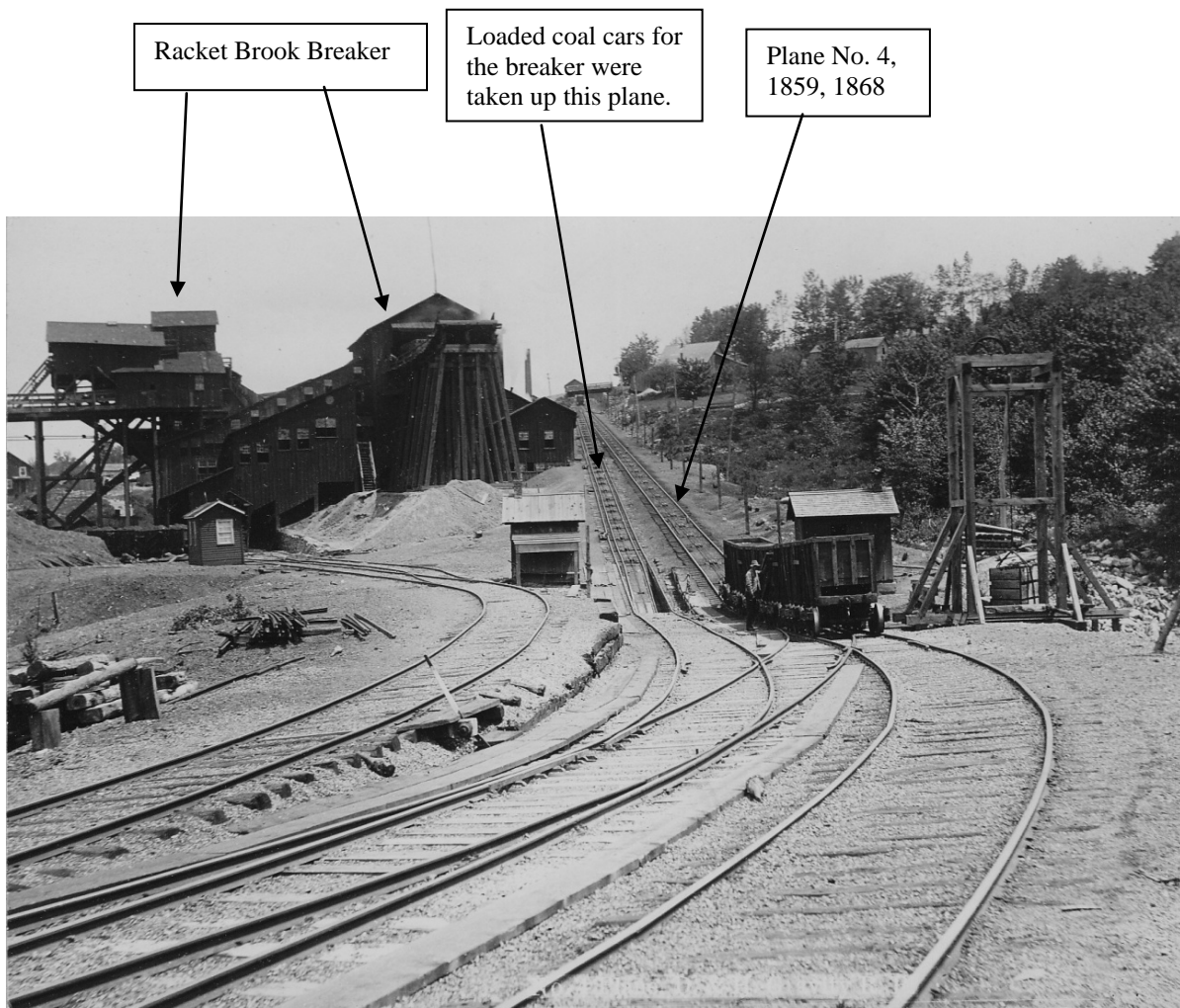
--1,320 feet long (rise 131.02 feet)

--Level 4: 239 feet long (fall 2.67 feet)

Engineers at the head of Plane No. 4:

“No. 4, John C. Davis came from New York with others of the first engineers to put up the engines, and was given the position as engineer, followed by Peter Campbell; Patrick Archbald, Charles Ball, who was killed June 7, 1845, while working about the engine, and Patrick Grattan, who on the new road was transferred to No. 5.” (*Joslin/Davies*)

Plane No. 4 on D. & H. Gravity R. R. from Orig. Photo Souvenir of Del. & Hud. Gravity Road. Published by L. Hensel, Hawley, PA. Collection Carbondale Historical Society.



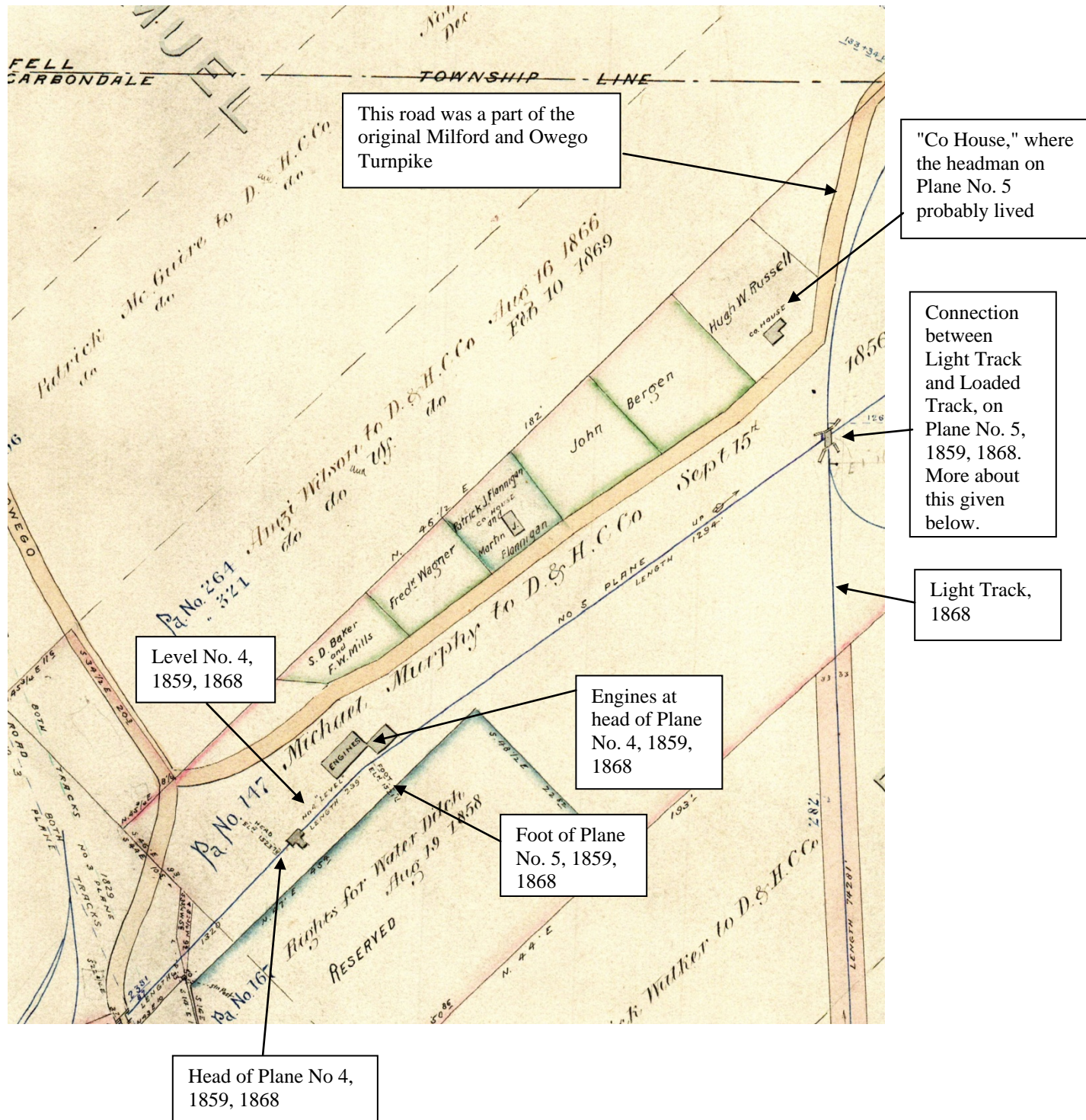
Switchback by means of which loaded coal cars were taken to the top of the Racket brook breaker



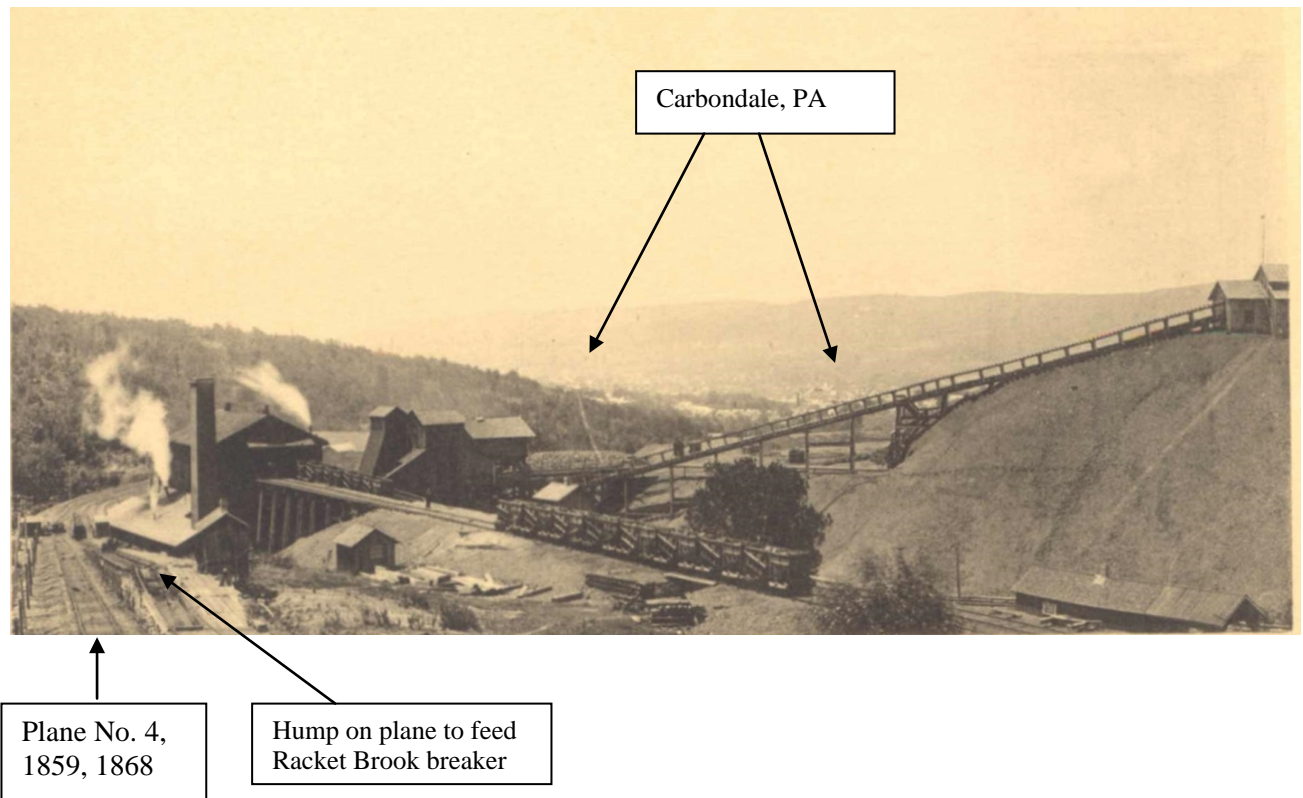
Foot of Plane
No. 4, 1859,
1868

Racket Brook, coming down
from No. 4 Reservoir

Head of Plane No. 4 as seen in this detail from the 1895 Gravity Railroad map volume.



Photograph *Glimpse of Carbondale, From Plane No. 4* that is included in "Souvenir of the Gravity Road / Photo-Gravures of the Old Delaware and Hudson Coal and Passenger Road, between Carbondale and Honesdale, Pa.," published by W. B. Foster, Photographer, Carbondale, Pa. Printed by the Albertype Company, Brooklyn, New York.



Shown below is a photograph in the collection of the Wayne County Historical Society by Johnson, Scranton, PA, 1860. This is one of a series of no less than 32 photographs (large-format albumen prints, each with a gilt-bordered mount, each photograph approximately 12 by 16 inches) that were taken of the D&H operations, circa 1860-1871, by the Scranton photographer Thomas H. Johnson. On April 7, 1998, a set of 32 of these Johnson photographs was sold at Sotheby's in New York for \$66,300.

Plane No. 3,
1859, 1868

VIEW ON THE MOOSIC.

(WEST.)

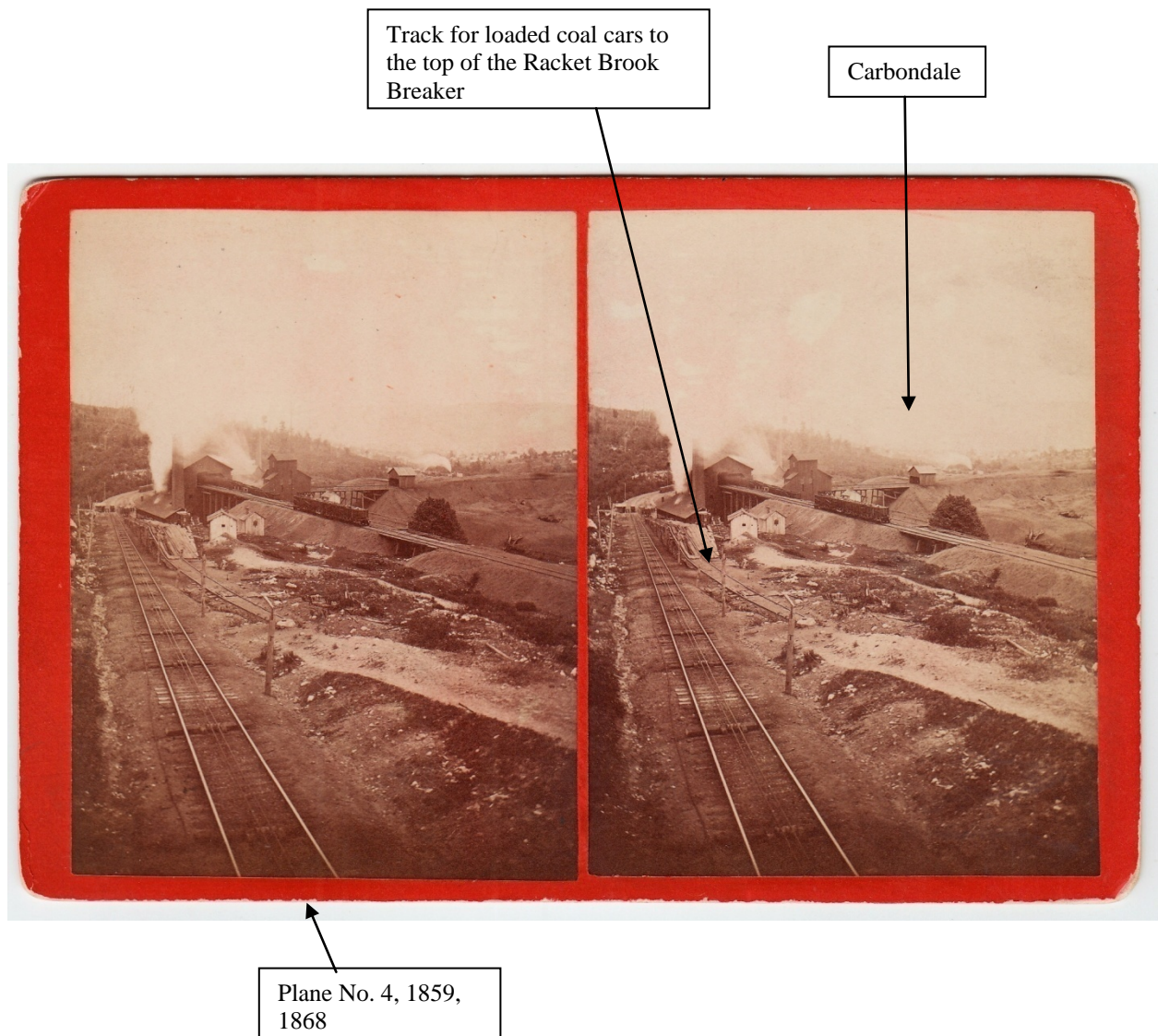
DEL. & HUDSON CANAL CO.



Racket
Brook
breaker

Carbondale and the Lackawanna Valley can be seen in the background of this photograph.

Hensel stereocard No. 1148: *View of Carbondale, seen from Plane No. 4*



Accidents, Facts about the Plane, Daily Life

James Kegan injured as he attempted to get onto moving cars near No. 5:

“A man by the name of James Kegan, was severely injured on Saturday last, in attempting to get onto the cars while in motion near No. 4. He was drawn under the wheels, and the integuments and muscles of the whole calf of his leg were mangled and nearly torn off. We understand he is doing well.” (*Carbondale Advance*, November 28, 1857, p. 2)

Trouble with the engine at No.4:

"There has been a break at No. 4 Engine over the mountain this week which has caused a suspension of business on our Railroad and at the Mines for two days. After operations commenced on Friday a runaway occurred at No. 1 plane which piled up empty cars at the foot in great confusion. / A boy upon the cars at the time chanced to be in almost the only car which went through the crash safely." (*The Advance*, August 7, 1858, p. 3)

Thomas Joyce killed on No. 4 plane:

"On Monday, Thomas Joyce, a young man, was killed upon No. 4 plane by accidentally falling upon the track before a train of cars. He was an Irishman,—and was the only surviving dependence of a widowed mother." (*Carbondale Advance*, August 14, 1858, p. 3)

Lucius Walter killed at Plane No. 4:

"LUCIUS WALTER, Esq., of Prompton, while at work upon the track of the Del. & Hud. Railroad, on Wednesday of last week, fell at Plane No. 4, causing injuries so severe that he lived but a few hours." (*Carbondale Advance*, Saturday, June 24, 1865, p. 2)

Madley killed at the foot of Plane No.4:

"Fatal Accident. / A respectable citizen of our town, by the name Madley, was killed instantly at the Foot of No. 4 Plane upon the railroad, yesterday. He was about to hitch the train to the endless rope, when a train came up in the rear, and bumping against the cars he was about to connect to the rope, they were suddenly thrown against him, knocking him down across the rail, and the truck passed over him, producing fatal injuries, and death almost instantaneously. / He was a widower, aged about fifty, and leaves three children." (*Carbondale Advance*, Saturday, May 9, 1868, p. 3)

Roger Sheehy killed as he attempted to jump upon moving cars:

"**Fatal Accident.** / The *Wayne Co. Herald* of this week says: / On Saturday last Mr. Roger Sheehy, a boatman, availed himself of the opportunity afforded by the Del. & Hud. R. R. to attend the funeral of a brother at No. 4. Desiring to return, he attempted to jump upon the cars while they were in motion, missed his footing, fell under the wheels, and was killed." (*Carbondale Advance*, September 26, 1868, p. 3)

5910

Plane No. 5

--Plane: 1,294 feet long (rise 130 feet)

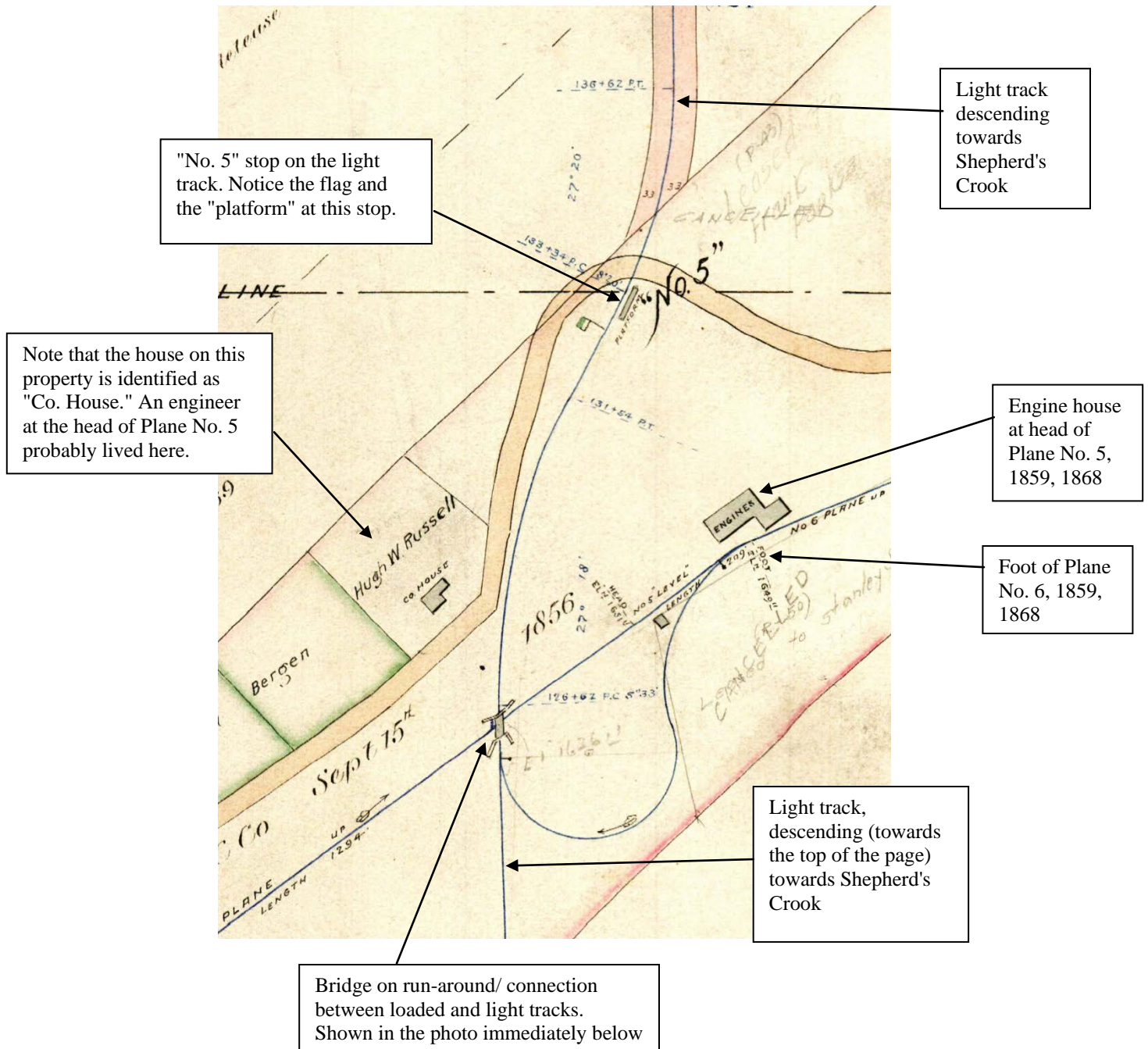
--Level 5: 209 feet long (fall 2 feet)

Engineers at the head of Plane No. 5:

“No. 5, whether in the order here given, were Ned Farrell, John C. Davis, J. B. Smith, Orlando Foster, William Miller, Adam Hunter, who died after running the engine from 1876 to 1887, Samuel T. Chubb. Some accounts give John C. Davis as the first engineer at No. 5, and that was the engine he helped to erect.” (*Joslin/Davies*)

No. 5 Plane (and a lot of other data that will be discussed in the 1868 configuration unit), from the 1895 Gravity Railroad map volume:

A closer look at the map detail given immediately above.



In the photograph given below, the bridge for the transfer track (loaded to light) at Plane No. 5 can be seen. Cars traveling up Plane No. 5 could be transferred, by means of this run-around, to the light track, which went from this transfer point down through Shepherd's Crook and on down the valley. In this view we are looking down Plane No. 5. Plane No. 4 and the Racket Brook breaker are in the distance. Notice in this photograph that about half way down on the right is a Runner, walking the roadbed. The original of this photograph is in the collection of the Waymart Area Historical Society.



Accidents, Facts about the Plane, Daily Life

Michael O'Dowd in accident at the head of Plane No. 5:

“On Friday, about noon, Michael O’Dowd, at the head of No. 5, was struck, and thrown into the hole where the coal is dumped and escaped with a broken arm. It is fortunate the hole was there, as he would else have been crushed. / Such painful occurrences should produce the utmost carefulness in those employed upon the road, and warn those that are in the habit of riding upon it for their own convenience.” (*Carbondale Advance*, August 14, 1858, p. 3)

John Godding killed near No. 5:

“Another Railroad Accident. / A most lamentable accident occurred upon the Railroad near No. 5 Engine yesterday, which resulted in the death of JOHN GODDING, ESQ. While standing near the track, he was struck by a car which had broken loose from a train ascending No. 6 plane, and ran back down the plane and off the track to where he was standing. He was so badly injured that his death occurred in a few hours. Esquire Godding was an affectionate and exemplary husband and father, and a much respected citizen. His death will be much lamented.” (*Carbondale Advance*, January 29, 1859, p. 2) Bill Wallis told the author that the accident in which John Godding (one of Bill Wallis’ ancestors) was killed took place on Godding’s last day of work, as he was about to begin his retirement, after having worked his whole life for the D&H.

Here is a Gooding family photograph by “Harding, Photo. Susquehanna, Pa.” that Bill Wallis lent the author on September 3, 2010. Standing, left to right: unknown, Hannah Godding Wallis (Bill Wallis’ grandmother), and Mary Godding Pentecost. Seated: Luther Godding, John Godding, and Mary Farrar Godding.



Among the John Godding papers in the Bill Wallis collection is a receipt for \$15, dated "Carbondale Oct. 23d 1857," from William Wurts to John Godding Esq. for property in Carbondale Township near the foot of Plane No. 3. Here is a facsimile of that receipt:

Carbondale Oct. 23^d 1857.
 Received of John Godding Esq. Fifteen Dollars
 on account of the price of land sold by me to him in the
 Township of Carbondale, near the foot of Plane No. Three of the
 Delaware and Hudson Canal Co's Rail-Road—
 \$15.00 Wm Wurts

Rec Carbondale May 9-1862 from Mrs.
 John Godding wife of above Ten Dollars
 for Mrs. William Wurts wife of
 above Wm Wurts.
 \$10.00 D N Lathrop

Death of James Turner in 1859:

"DIED. / On March 2d, JAMES TURNER, at his residence near No. 5 Engine—aged about 50 years. / His widow desires information of their daughter, Frances Turner—believed to be in New York City. Her return home is earnestly desired." (*Carbondale Weekly Advance*, March 12, 1859, p. 2)

John Wall in serious accident at the head of Plane No. 5:

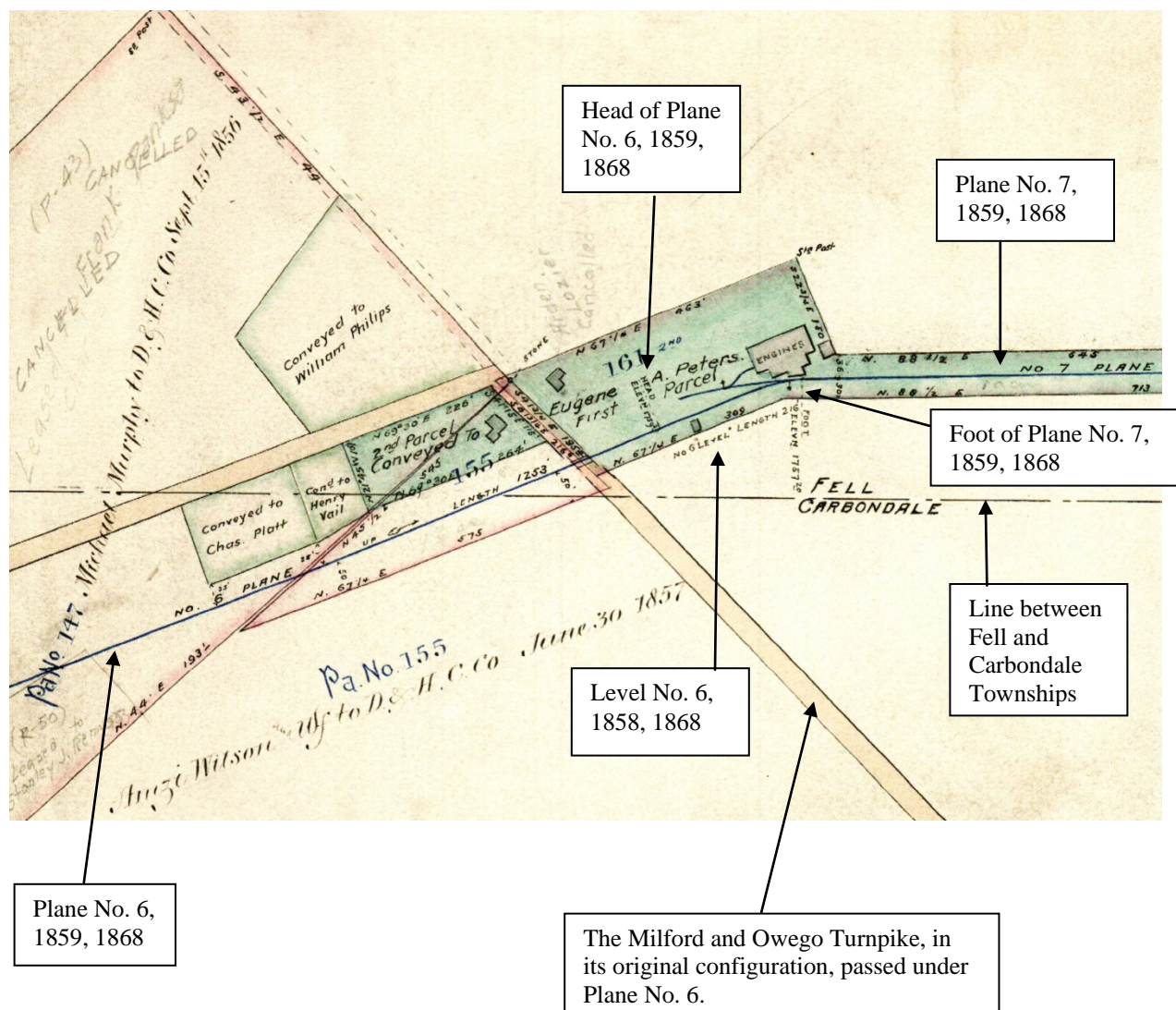
"John Wall, last week Thursday, lost his left hand by its being caught and drawn between the wire rope and shrive [sheave] wheel at the head of No. 5 plane. The flesh and integuments from just below the wrist, were completely stripped from the whole hand, together with the bones of the two middle fingers, and tearing the tendons some inches in length from the muscles in the fore-arm. Amputation was performed at the wrist by Drs. Lewis and Burr, saving the thumb attached and uninjured. The patient we learn is doing well." (*Carbondale Advance*, November 26, 1859, p. 2)

John Malone badly wounded at Plane No. 5:

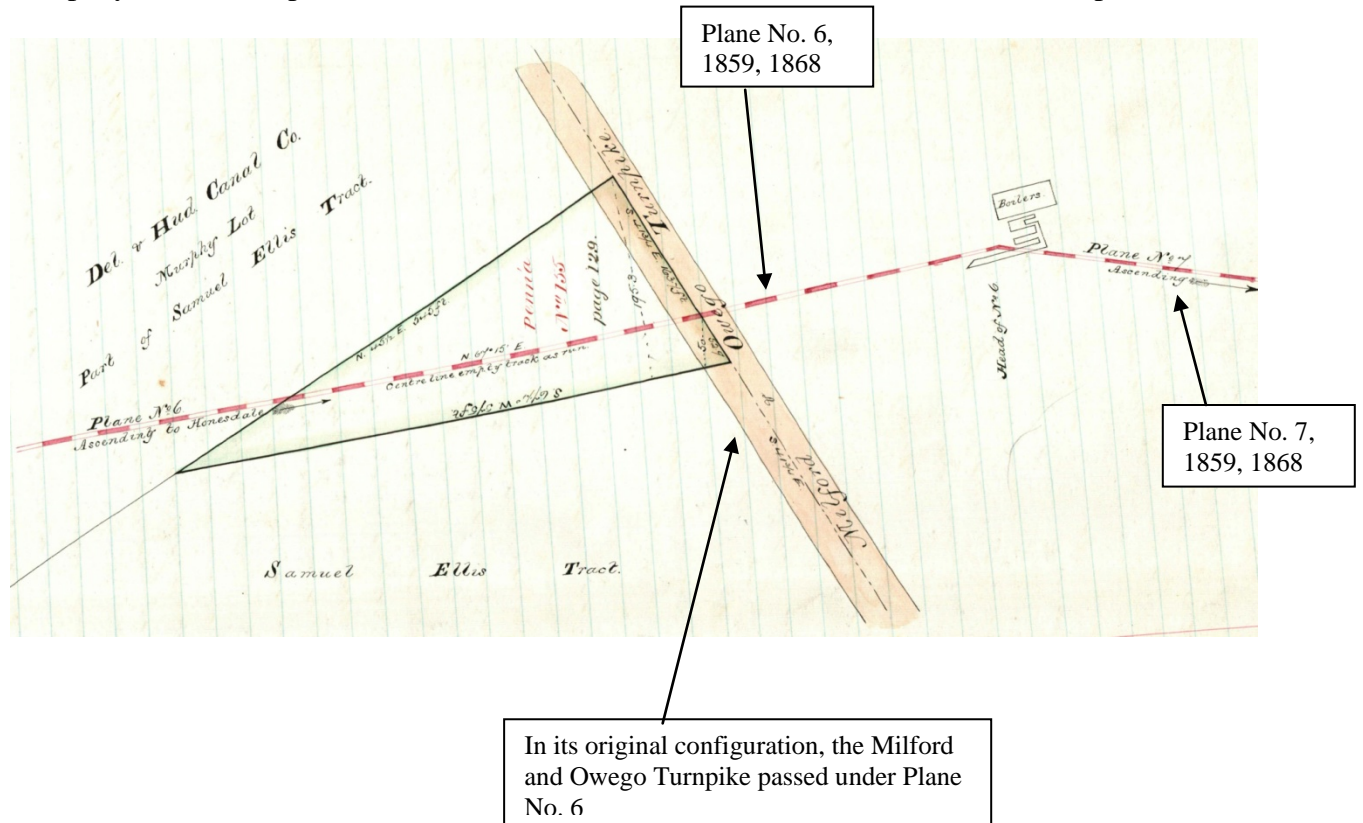
"On Monday of last week, John Malone, railroad hand, while assisting with others to replace a car upon the track at No. 5, received the whole weight of the car upon his body, producing a compound fracture of the right leg, and also injuring the spine so as to produce entire paralysis of the lower half of the body. Dr. Ottman was called and dressed the fracture immediately, but found the spinal injury so severe as to render his recovery doubtful" (*Carbondale Advance*, September 8, 1860, p. 3]

- ## Engineers at the head of the plane:

The head of Plane No.6, Level No. 6, and the foot of Plane No. 7 can be seen in the detail given below from the 1895 Gravity Railroad map volume

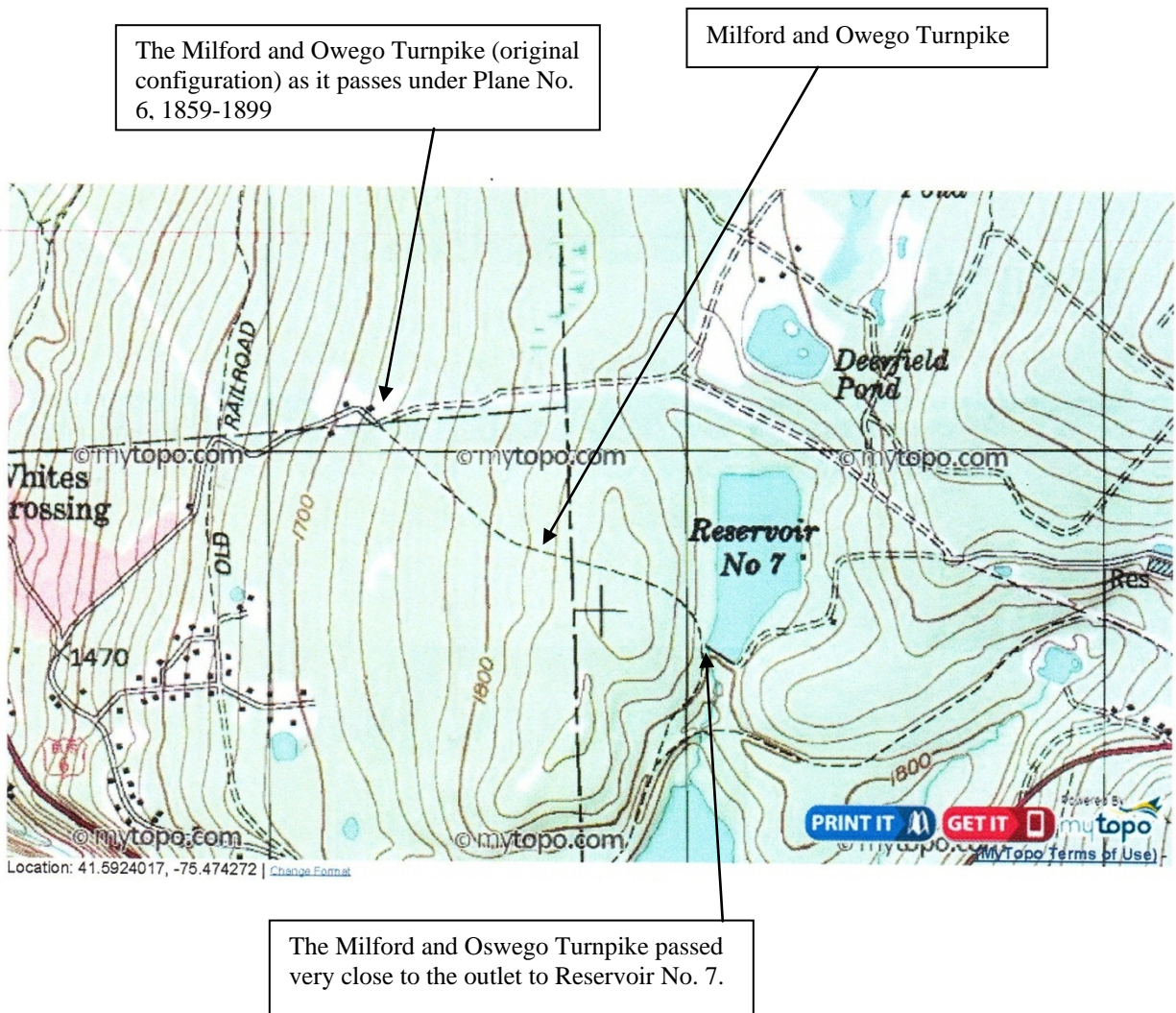


In the *D. & H. Deed Book – Luzerne 2*, there is a map on p. 128 that illustrates a deed, pp. 129-30, dated June 30, 1857, between Amzi Wilson and wife and The Delaware & Hudson Canal Company. On that map, the head of No. 6 is shown, as is No. 6 level. Here is that map:



In the same deed book, on page 137, there is a map that illustrates a deed, pp. 137-39, dated December 1, 1857, between Thomas Thomas and wife and The Delaware and Hudson Canal Company. On that map, Plane No. 6 head and Number 7 Level are shown. Here is that map:

Here is a detail for a U.S. Geological Survey map showing the Milford and Owego Turnpike, in its original configuration, as it passes under Plane No. 6:



Here is a view, looking up the incline that was Plane No. 6, that was taken by the author on August 14, 2013:



Photograph by the author on August 14, 2013 of Level No. 6:



Accidents, Facts about the Plane, Daily Life

(no articles yet)

No. 6 Level seen from Foot of No. 7

Here is a view of Plane No. 6 head and the beginning of Level No. 6 to the foot of Plane No. 7 from page 128 in *D&H Deeds Luzerne I*:

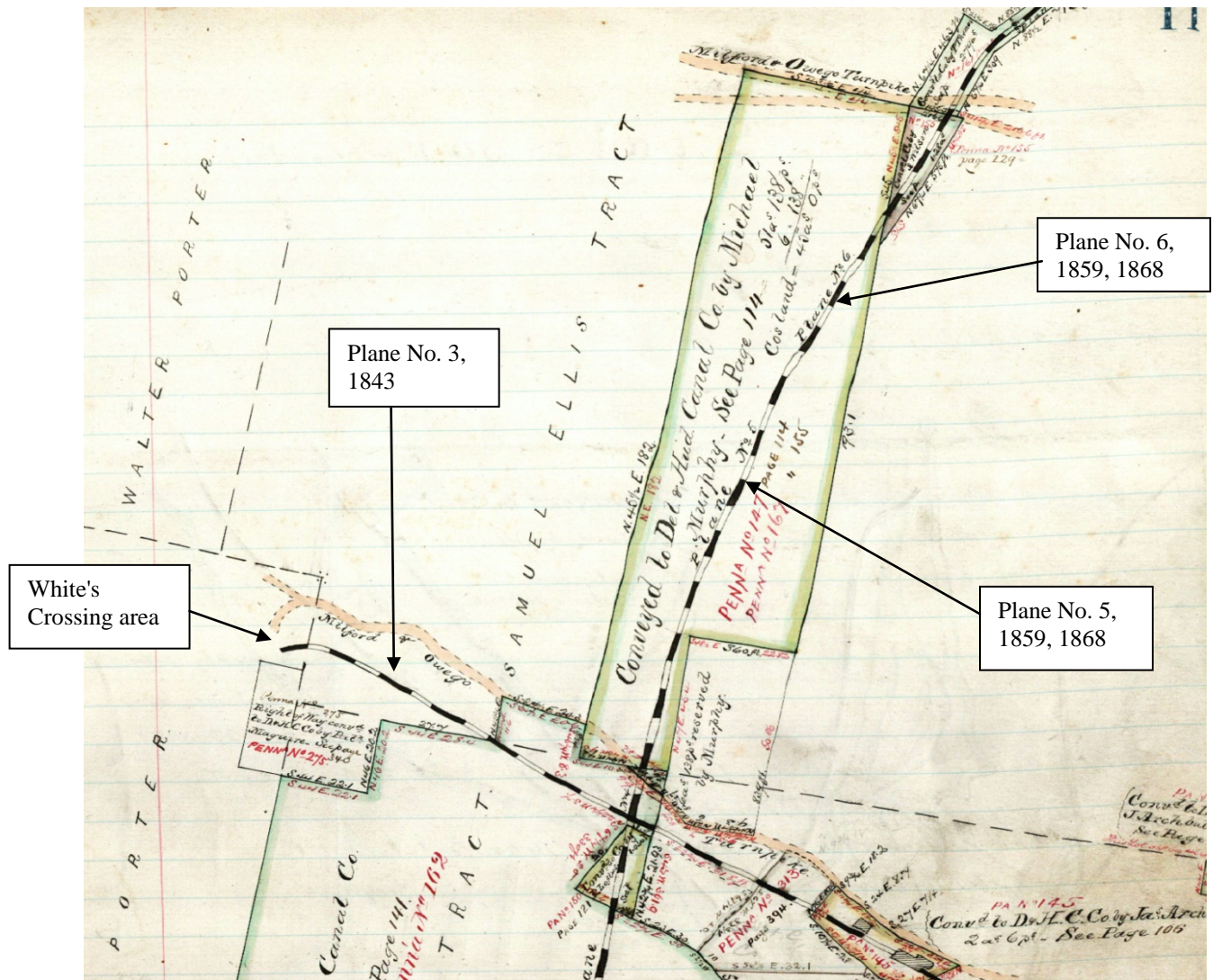
View taken from No. 7 Plane (photographer standing on No. 7 Plane), looking down No. 6 level. Photo in collection of Carbondale Historical Society.



One Map: Planes 2, 3, 4, 5, 6:

In the *D. & H. Deed Book – Luzerne*, on page 11, there is a map, that illustrates the deed, pp. 1-6, between John Wurtz and Others and The Delaware & Hudson Canal Company. On that map, Planes 2, 3, 4, 5, and 6, as well as a vast quantity of other D&H data (to be discussed in a later unit) are shown. Here is that map:

Planes 5 and 6:

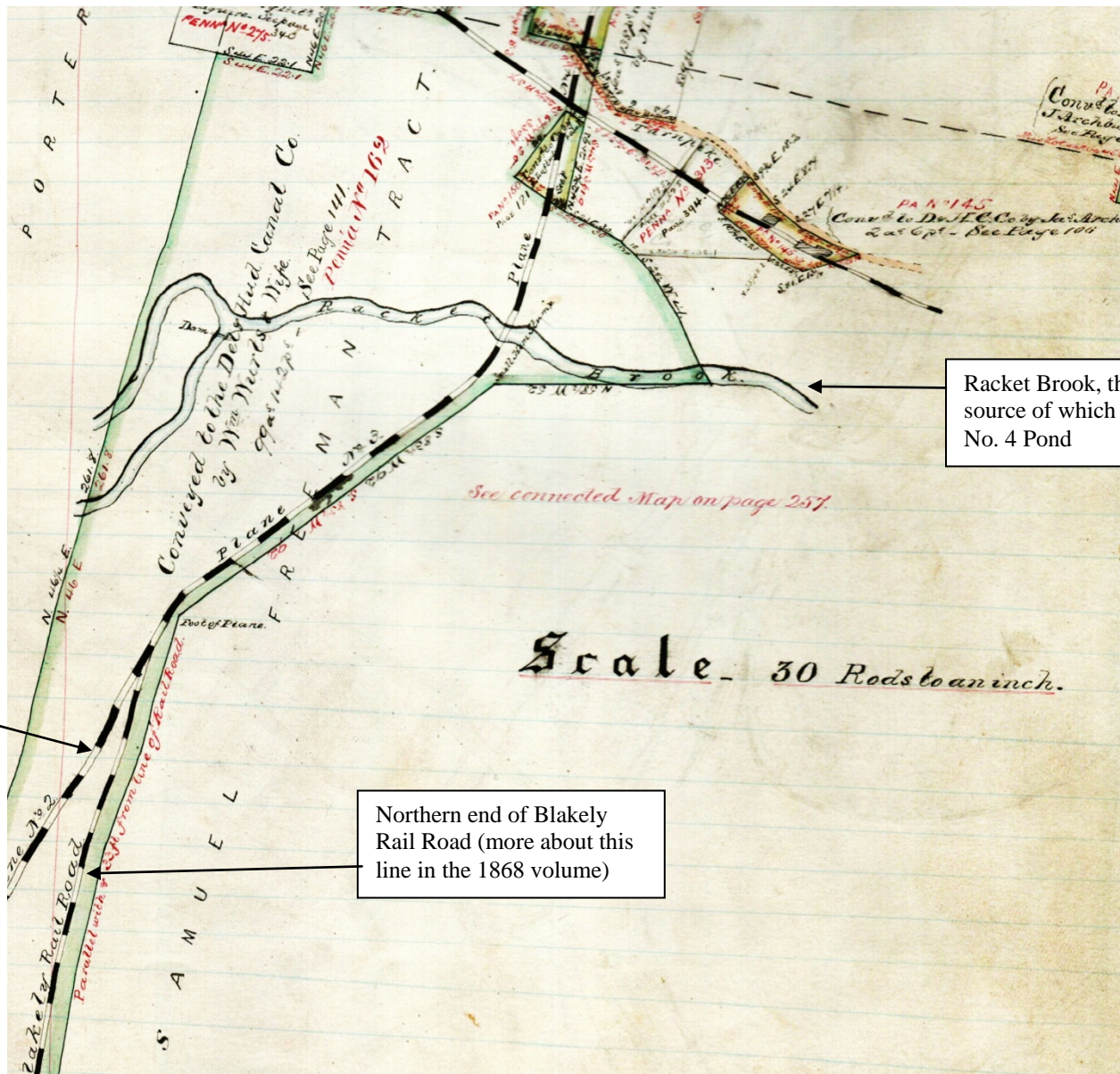


Plane No. 4, 1859, 1868

Artesian Well area

Scale. 30 Rods to an inch.

Planes 2 and 3:



5912

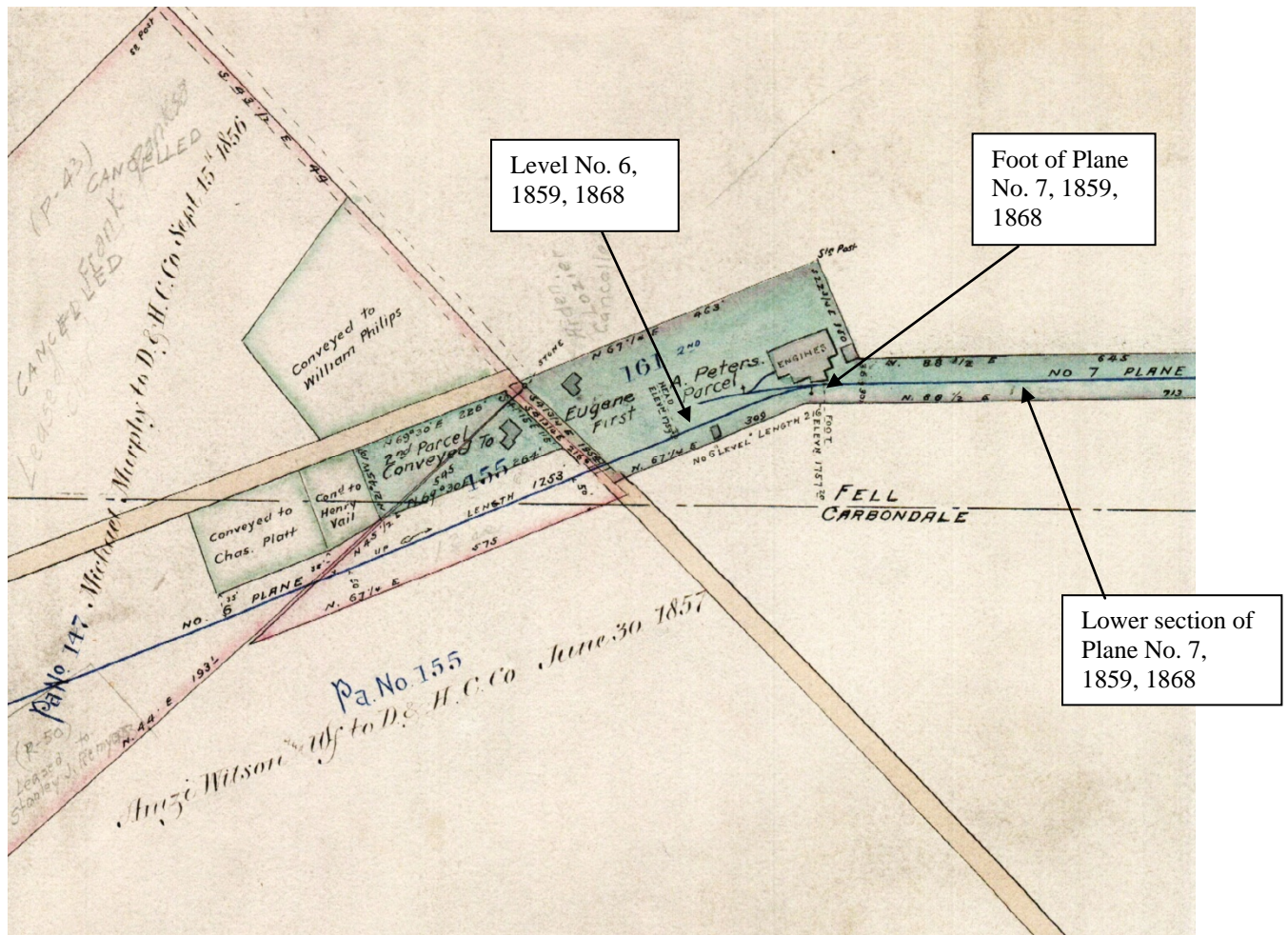
Plane No. 7

--Plane was 1,410 feet long (rise 101.61 feet)

--Level 7: 1,809 feet long (fall 15.79 feet)

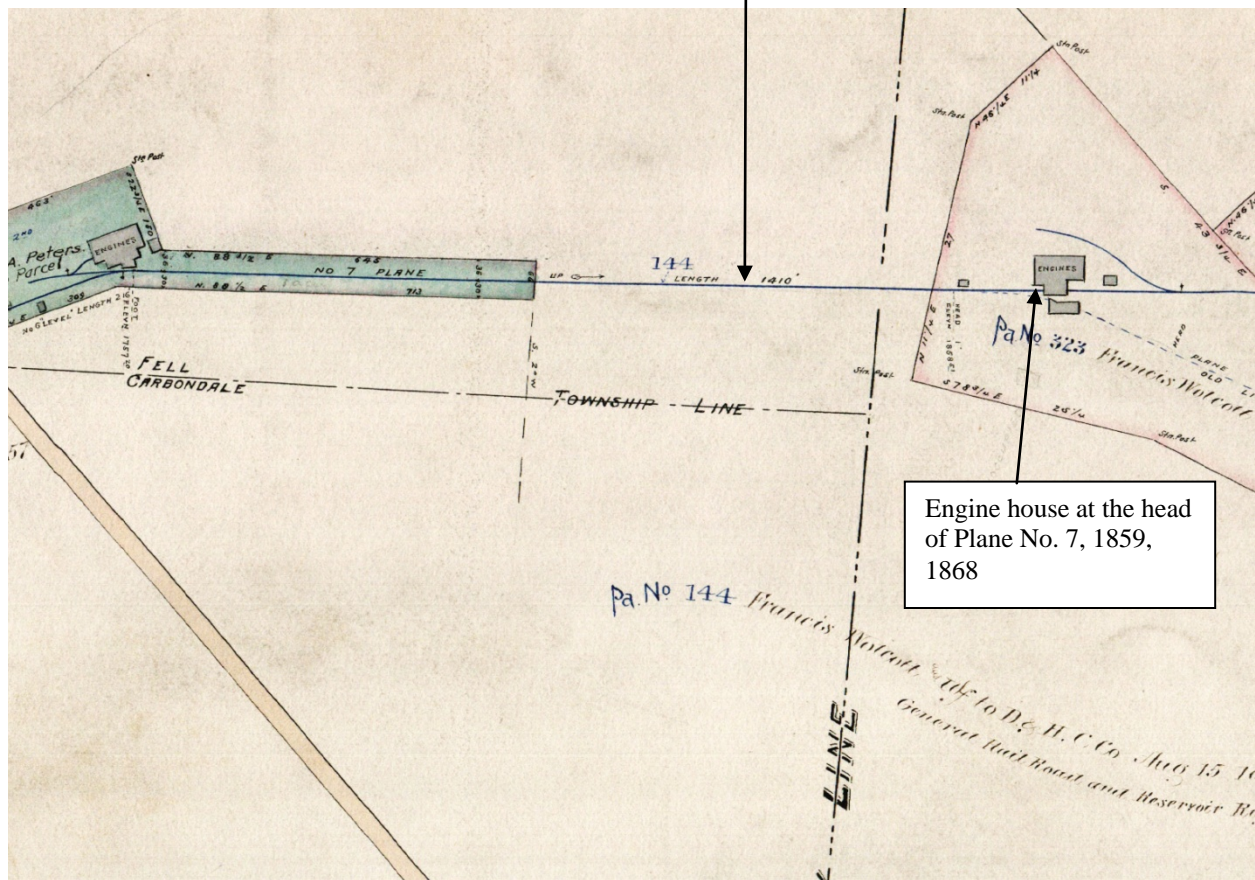
Three views from the 1895 Gravity Railroad map volume:

Foot of Plane No. 7 and lower section of the plane:



All of Plane No. 7,
1859, 1868

Plane No. 7 as a whole:



Engine house at the head
of Plane No. 7, 1859,
1868

The engineer at the head of Plane No. 7 was P. J. Foster:

"P. J. FOSTER, engineer at engine No. 7 since 1861, and a resident of Carbondale since 1856, was born in Susquehanna county, Pa., in 1837, and married Lucy Sheldon, of Bradford, Pa.". (1880, p. 452C)

Plane No. 7: two photographs, both by the author, on 08-14-2013.

Note: The paved road is not Plane No. 7. Rather, Plane No. 7 ascends the hill in the forested area to the left of this paved road.



Plane No. 7 ascends the hill in the forested area to the left of this road along the pole line.



Head of Plane No. 7: two photographs by the author on August 14, 2013:

The engine house on Plane No. 7 was at the crest of the hill here, in this general vicinity.



The engine house on Plane No. 7
was at the crest of the hill here, in
this general vicinity.



Wagon road down to Reservoir No. 7. Road begins just opposite the location of the site where the head of Engine No. 7 was located. Photograph by the author on August 14, 2013.

Wagon road down to Reservoir No. 7. Road begins just opposite site of engine house at the head of Plane No. 7. Steep decline of road all the way to Reservoir No. 7.



Site of engine house at head of Plane No. 7

Four views of Reservoir No. 7 taken by the author on August 14, 2013 in the course of a Gravity Railroad walk with Ed Hodorawis.

(1)



(2)



(3)



(4)



The outlet of Reservoir No. 7, as seen from below the reservoir. Photo by the author on August 14, 2013. When ice was harvested from this reservoir and shipped by the Gravity Railroad to market, it was moved down through the outlet area to the Gravity tracks below the reservoir. Those tracks connected to the light track that was installed in 1868.



Two views of the area through which ice was moved between Reservoir No. 7 and the light track which passed through this area beginning in 1868. In this view, we are looking downhill from a spot near the end of the concrete outlet of Reservoir No. 7.



Ice moved down this roadbed to its connection with the light track.



Light track just below Reservoir No. 7. Track descends from here to Reservoir No. 4 area. The track from Reservoir No. 7 merged with the light track at a point very close to the spot where the author stood when he took this photograph.

In its original configuration, the Milford and Owego Turnpike passed through this area. It crossed the deep ravine just below Reservoir No. 7. In 1868 or thereafter, the D&H used portions of the original Milford and Owego Turnpike in this area, probably as a temporary holding area for empty cars. This we know from the fact that the surface of the turnpike road and the fill across the ravine just below Reservoir No. 7 is topped with the usual D&H ash/coal waste that is found on all D&H roadbeds.

Shown in the photograph given below is the top of the Milford and Owego Turnpike fill/ravine crossing just below Reservoir No. 7. The photo was taken looking East.



Path of original Milford and Owego Turnpike across the ravine just below Reservoir No. 7. This wagon road in this area was later used by the D&H as a siding on the light track. Note the ash/cinders that were applied by the D&H to the roadbed.

The water that leaves Reservoir No. 7 and runs down to Reservoir No. 4 passes through a very deep ravine, which the builders of the original Milford and Owego Turnpike had to fill in in order for the turnpike to get from one side of the ravine to the other. What we see in the above photo is the top of the Milford and Owego Turnpike fill across the ravine. This fill is very close to the outlet of Reservoir No. 7. A little bit lower down in the ravine is a second fill. This second fill (shown in a photo below) was constructed by the D&H in order to carry the light track across the ravine.

Shown in the photograph given below is the opening of the drainage culvert under the fill shown in the above photograph. Note that the style of the Milford and Owego culvert (rounded field stones topped with flatter stones) is not the usual D&H culvert style (cut stones with flat top), which supports the argument that this fill is the Milford and Owego fill and not the later fill (further down the ravine) that was constructed by the D&H for the light track through this area. Miraculously, this drainage culvert has not gotten clogged up over the years.

Photo by the author on August 14, 2013 of the culvert under the Milford and Owego Turnpike fill just below Reservoir No. 7. The construction style of this culvert is not that of the D&H.



In its original configuration, the Milford and Owego Turnpike passed between Reservoirs No. 7 and 4, passing quite close to No.7, and then ascended the hill the west (to the left as you stand at the outlet and look out at the reservoir). The turnpike continued west and passed under the middle of Plane No. 6, before descending the mountain to again intersect with the present Milford and Owego Turnpike above White's Crossing. Here are two views, taken by the author on 08-14-2013, of the roadbed of the Milford and Owego Turnpike as it ascends the incline to the west of Reservoir No. 7:

(1)



(2)

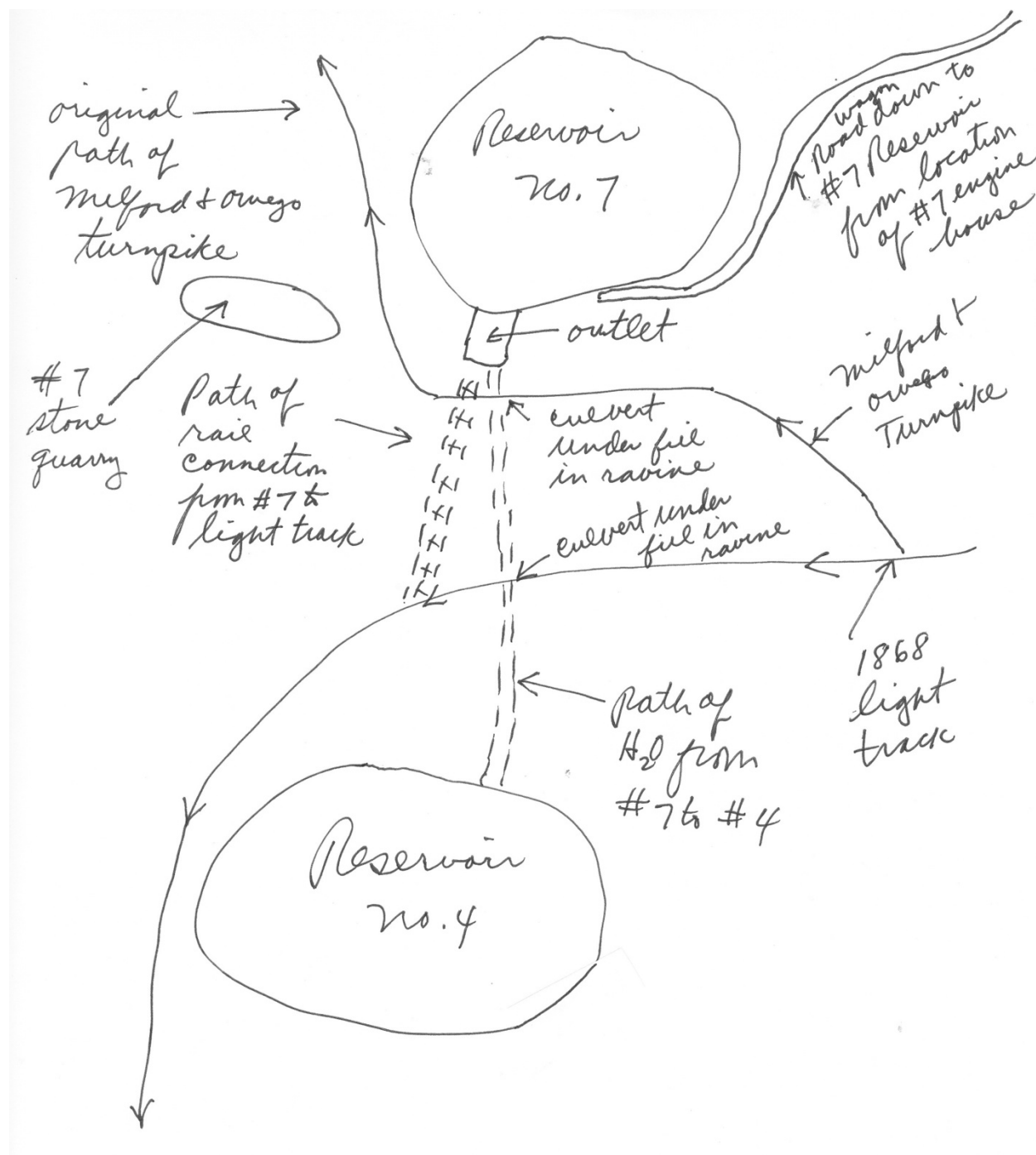


In their walk along the roadbed of the Milford and Owego Turnpike between Reservoir No. 7 and Plane No.6 on August 14, 2013, the author and Ed Hodorawis spotted the foundations of several buildings and located the well that was associated with one of those buildings. Here is a photograph of the well they discovered:

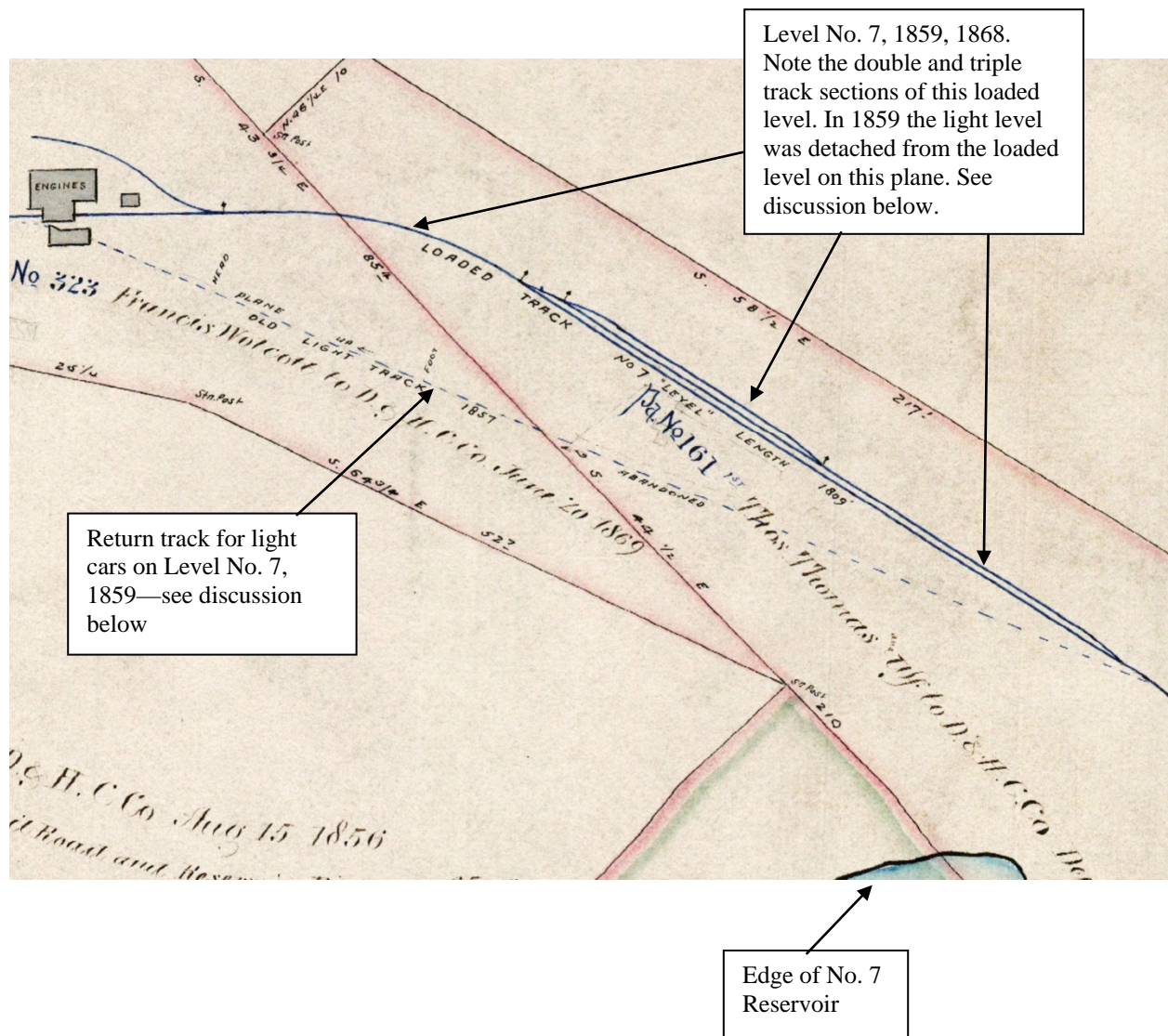


In addition, the author and Hodorawis noted the existence of many "old fashioned" apple trees, and a large patch of Japanese Knotweed (Bamboo)—both of which were surely planted by the residents of these houses in the woods.

Sketch by the author of the area between Reservoirs No.7 and No. 4. Sketch based on data learned during Gravity Railroad walk by the author and Ed Hodorawis on August 14, 2013:



Level No. 7, loaded cars, first part:



Levels Nos. 7 and 8, 1859 Configuration:

On the levels on Planes 1-6 (1859), the loaded and the light tracks were on the same roadbed/right-of-way/side by side. On both Planes 7 and 8 (1859), the loaded car level and the light car ("return") level were partially detached from each other and were located on different roadbeds. We will have a look in detail at the light car levels on both of these planes after we have looked at Plane No. 8.

Accidents, Facts about the Plane, Daily Life

John Hamlin killed on Plane No. 7:

We briefly noted last week the fact that John B. Hamlin, 3d, the last remaining of the family of seven children of John B. Hamlin, 2d, of this city, had been instantly killed upon the railroad on Saturday last, April 28th. / The accident occurred on No. 7 Plane, about 3 miles up the mountain from this place. / John was at work, and engaged in picking up spikes along the plane, and at this time had an armful and stood with his back to the approaching cars, and seemed not be see them or be aware of the danger until he was knocked down by them across the rail and crushed. His age was about 12 years. / His six brothers and sisters, and his mother were within one week victims of the Spotted Fever, during its prevalence here. The case seems to be scarcely paralleled in the annals of afflicting dispensation." (*Carbondale Advance*, Saturday, May 5, 1866, p. 2)

5913

Plane No. 8

--Plane 8 was 1,257 feet long (rise 104.15 feet)

--"No. 8 head is 2,000 feet above tidewater." (*Carbondale Leader*, July 20, 1883, p. 3)

--Level 8, or the Summit Level: 4,895 feet long (fall 43.58 feet)—loaded cars only

Engineers at the head of the plane:

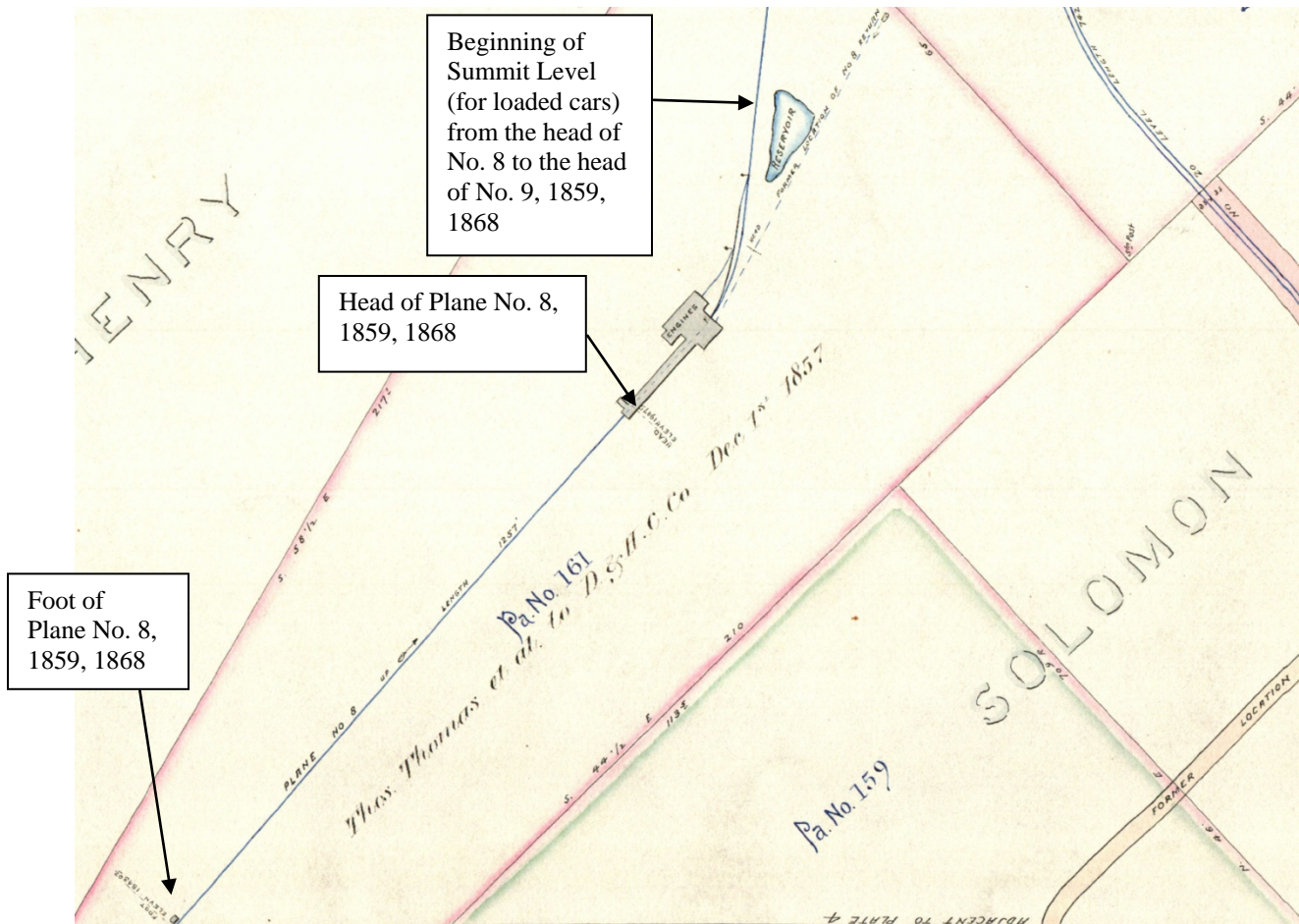
"No. 8, Farview, was named by Orlando Foster, who was one of the first engineers on the road. After his death his son George was given the place." (*Joslin/Davies*)

Orlando Foster was the first engineer to run the two stationary engines at the head of this plane. See "Engines with a History," under Plane 22 in the section titled "Extension to Valley Junction."

More about George H. Foster, son of Orlando Foster:

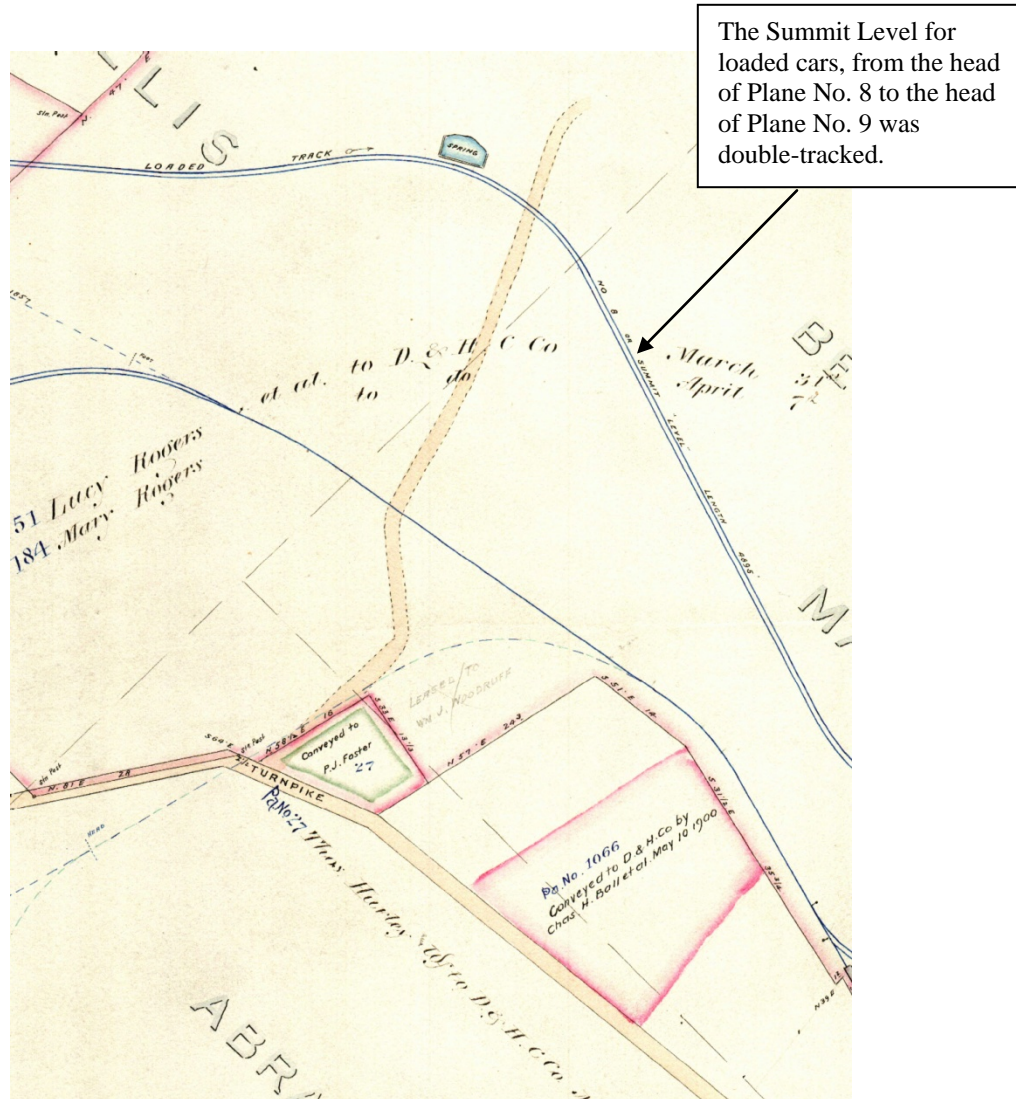
"GEORGE H. FOSTER, engineer at engine No. 8, was born in Canaan, Pa., in 1851, and married Leonora Chapman, of Prompton, Pa. Mr. Foster has for some time been in the employ of the Delaware and Hudson Canal Company, and at the time of his appointment was the youngest engineer on the line." (1880, p. 452C)

All of Plane No. 8 from the 1895 Gravity Railroad map volume:



Number 8 Loaded Level was also known as the Summit Level, the beginning of which we can see on the map immediately above.

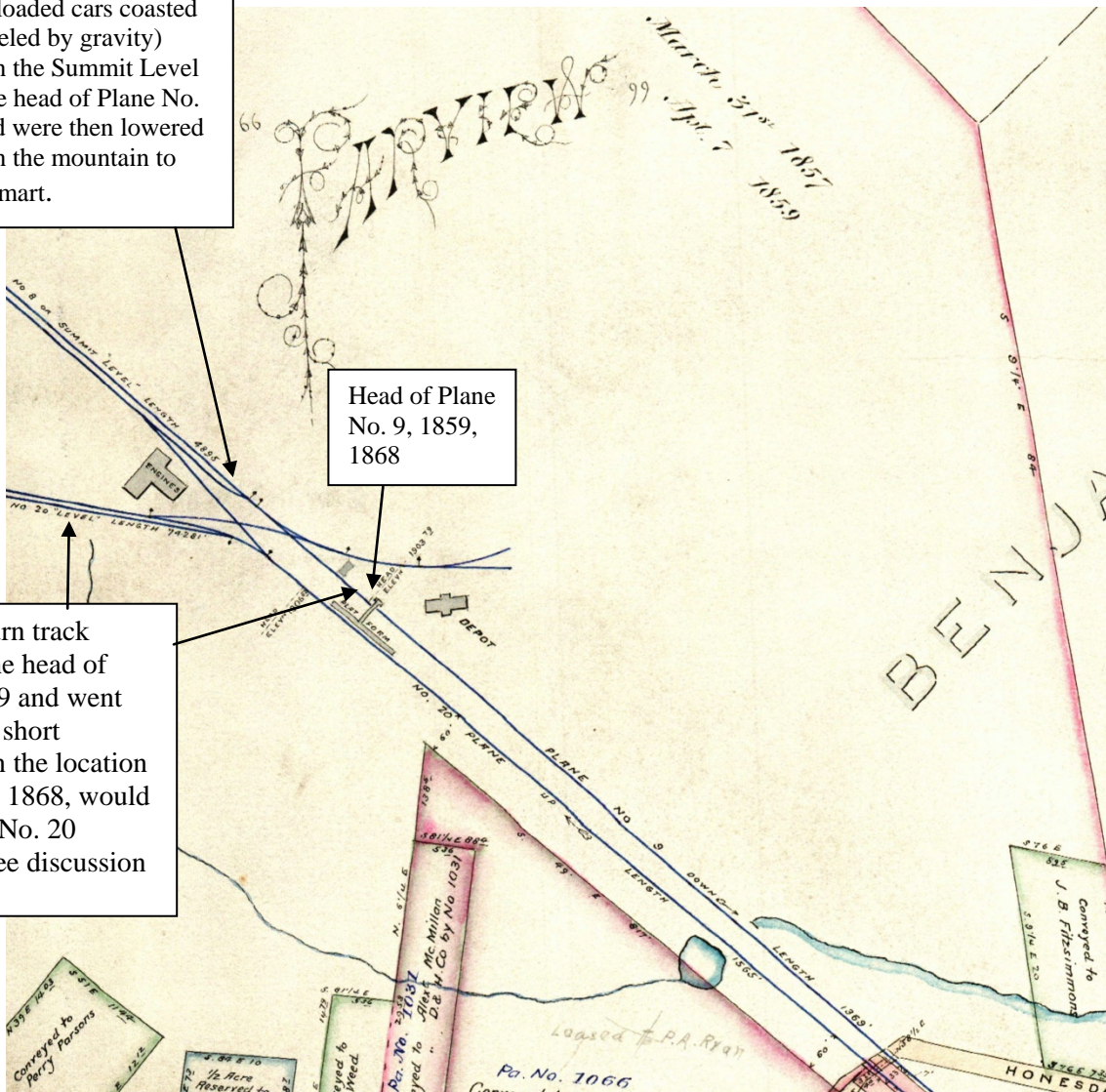
Loaded Level No. 8, the Summit Level, from the 1895 Gravity Railroad map volume. The Summit Level was for loaded cars only, 1859, 1868. Once the loaded cars traveled over the Summit Level from the head of Plane No. 8 to the head of Plane No. 9, at Farview, they (the loaded cars) were lowered down the planes to Waymart and on into Honesdale.



The loaded cars coasted (traveled by gravity) down the Summit Level to the head of Plane No. 9 and were then lowered down the mountain to Waymart.

Head of Plane No. 9, 1859, 1868

No. 8 Return track began at the head of Plane No. 9 and went West for a short distance on the location of what, in 1868, would be called "No. 20 Level"—see discussion below.



The map given above is from the 1895 Gravity Railroad map volume. In 1859, Plane 20 and Level No. 20, both shown on this map did not yet exist. They did not come into existence until 1868.

Return Plane on No. 8

The starting point for all this discussion of "return planes on levels" is the following from *Century of Progress*, p. 154:

“A material enlargement in the capacity of the railroad was commenced in 1856, the Managers authorizing, on February 15, alterations and improvements ‘west of plane No. 6.’ Accordingly a new road between Carbondale and the summit was constructed on a new location, and the number of planes was increased from five to eight. Six of the new planes and the intervening levels were double-tracked. The other two planes were also double-tracked, but on this section new tracks for light cars were constructed on descending grades to the foot of ‘return planes’ by which they were elevated to the head of the next plane. These improvements were completed early in 1858.”

How did these "return levels" on Planes 8 and 7 on the top of the Moosic Mountain—one of the great innovations of the 1859 configuration—work? The levels for the return of empty cars across the top of the Moosic Mountain, through the Plane 8/Level 8 and Plane 7/Level 7 area in the 1859 configuration have never been described in detail in print.

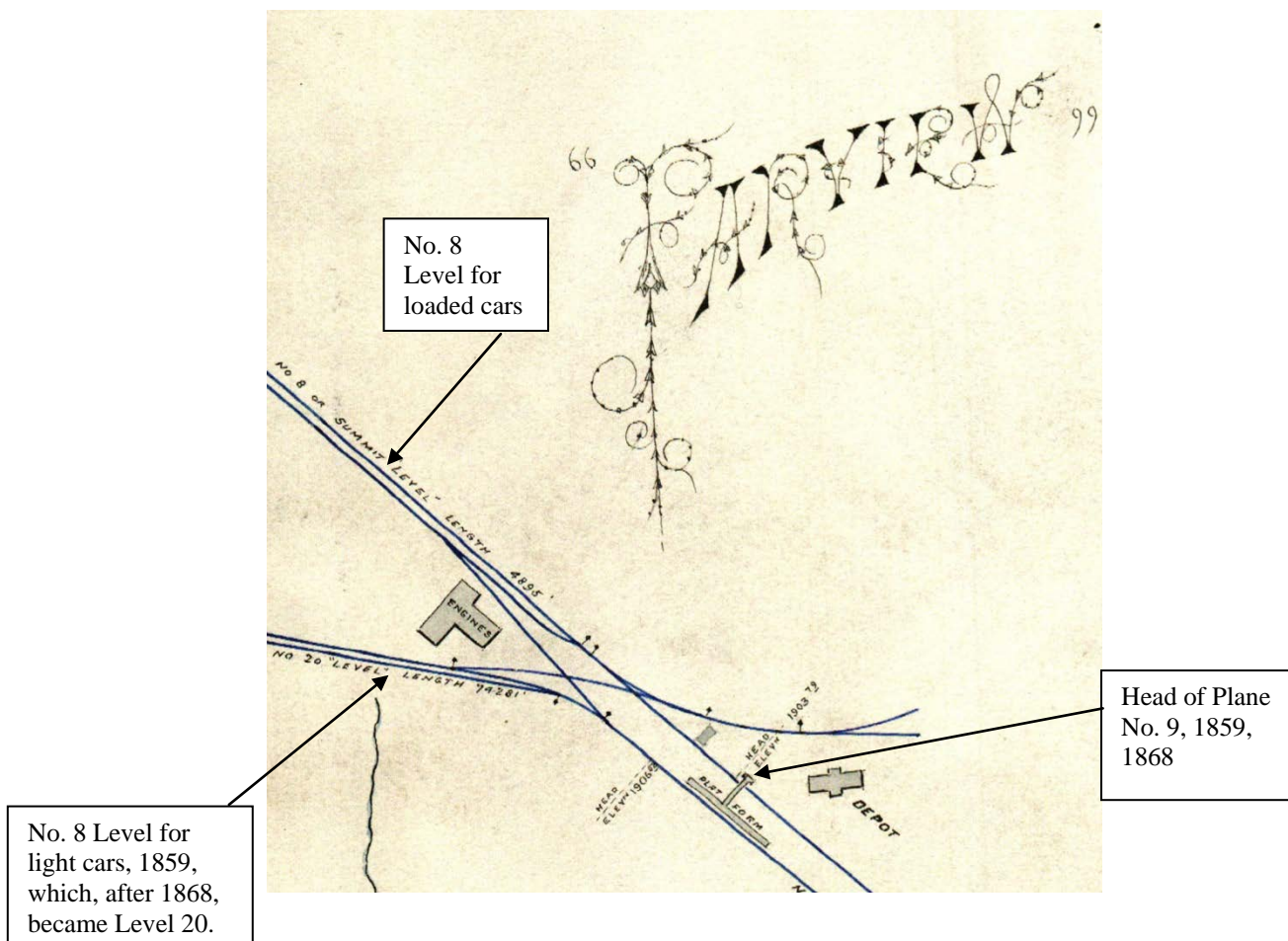
When the empty cars were returned to the head of Plane No. 9 (1859) they were carried across the top of the Moosic Mountain by means of levels (on Planes 8 and 7) that were designed specifically to transport the empty cars from the head of Plane No. 9 to the head of Plane No. 7—as we will demonstrate here in sections 5914 and 5915.

In 1829, both the loaded and the empty cars were pulled by horses, West-East and East-West, on the top of the Moosic Mountain. In 1845, the loaded cars coasted East on the levels on top of the Moosic Mountain because of the James Archbald innovation of downward sloping levels from the head of one plane to the foot of the next. In 1845, horses were used to pull the empty cars (East-West) back through the levels on the top of the Moosic Mountain because the levels were then sloped West-East. In the 1845 configuration (1845-1859) was the last time that horses were used on top of the Moosic Mountain.

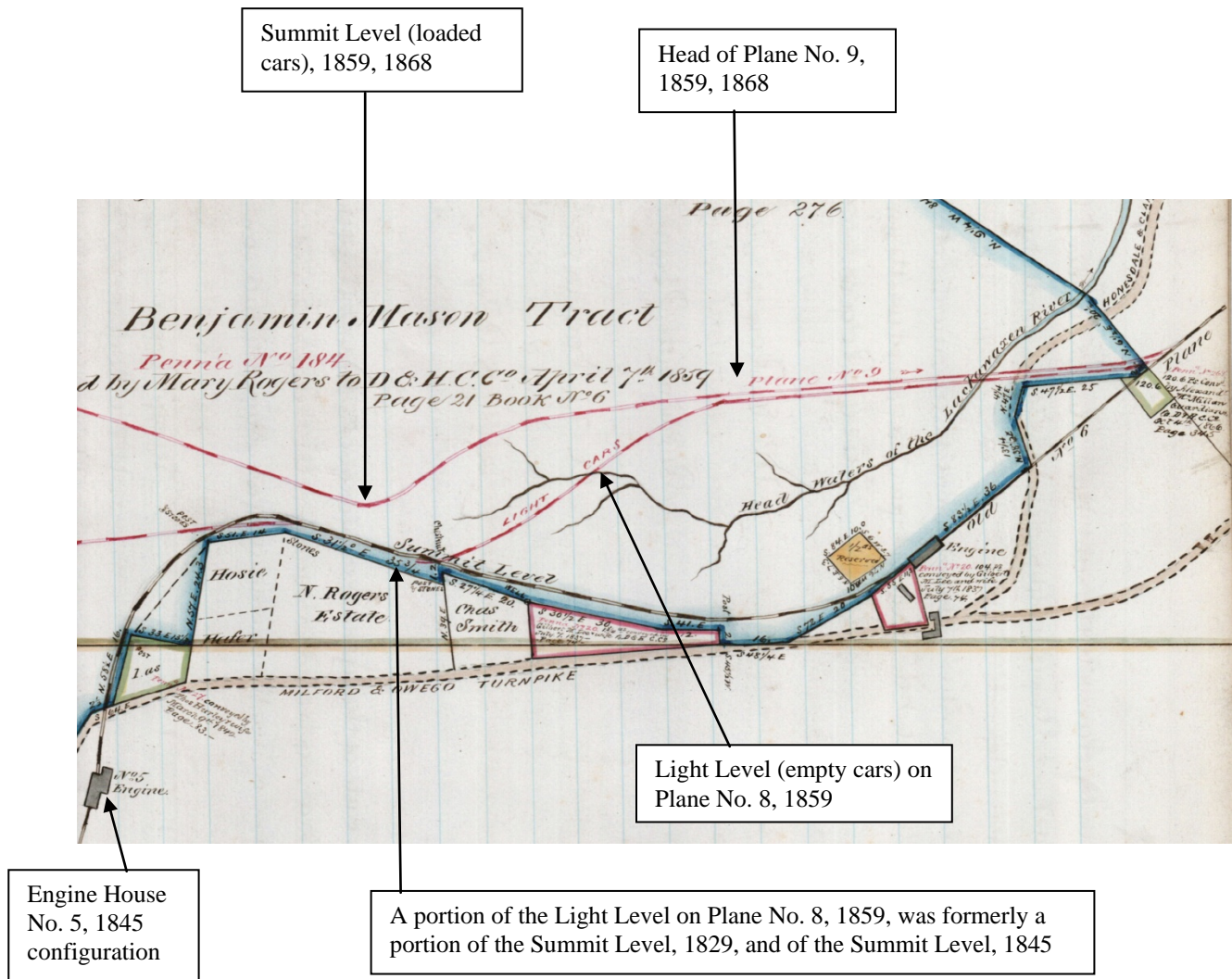
How did the empty cars now move East-West on top of the Moosic Mountain? They did so by means of light track levels in which were inserted "return" planes (one on Light Level 8 and one on Light Level 7).

The first of these return planes started at the head of Plane No. 9 and went downgrade as far as possible, heading in the direction of Plane No. 8. On the map shown above, that return level was in the same location as the beginning of "No. 20 Level." In 1859 it was not called "No. 20 Level," rather it was called "No. 8 Return Track."

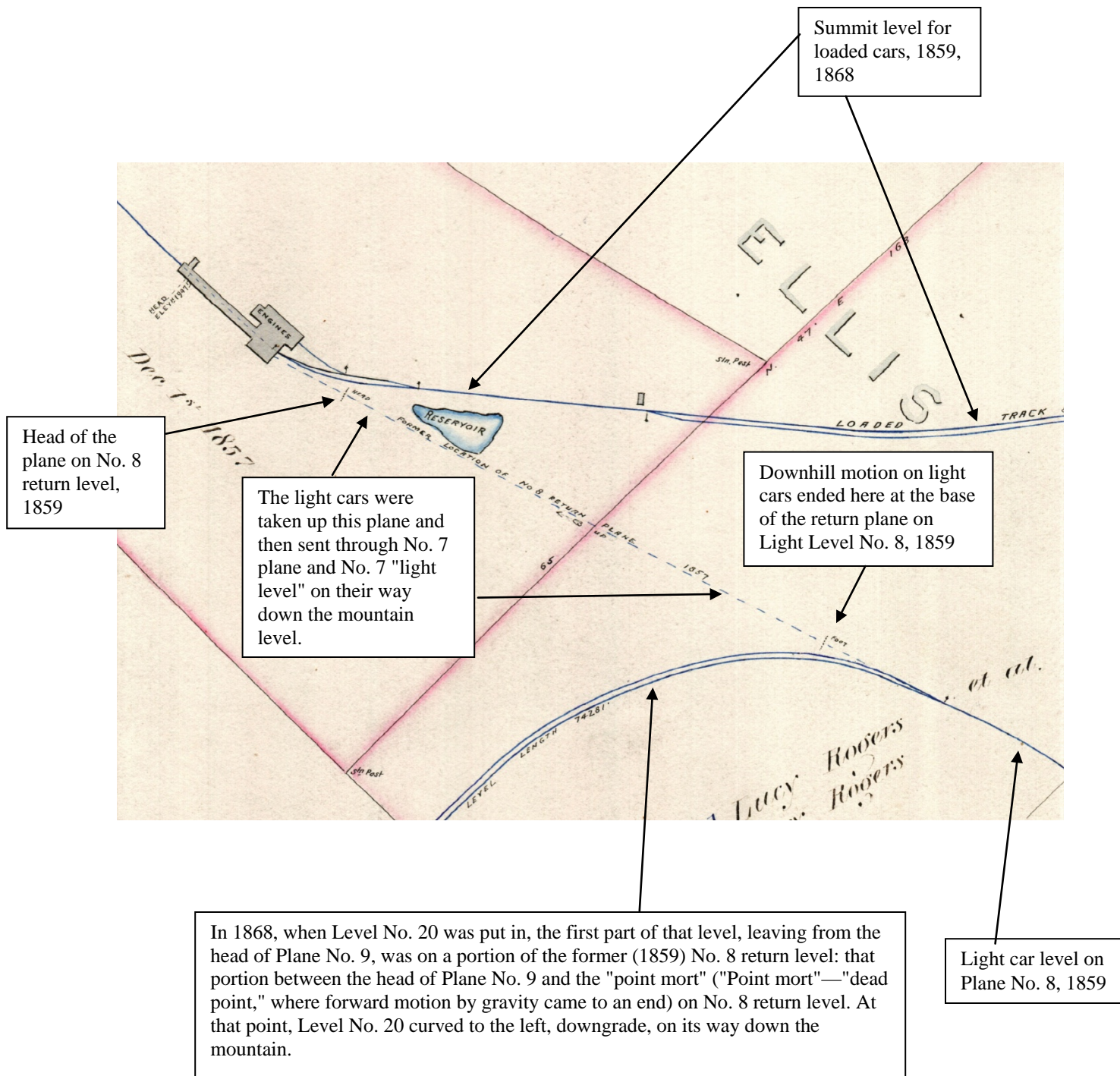
On leaving the head of Plane No. 9, the Summit Level and No. 8 Return track were very quickly some distance from each other, on different roadbeds, as can be seen from the detail of this area from the 1895 Gravity Railroad map volume:



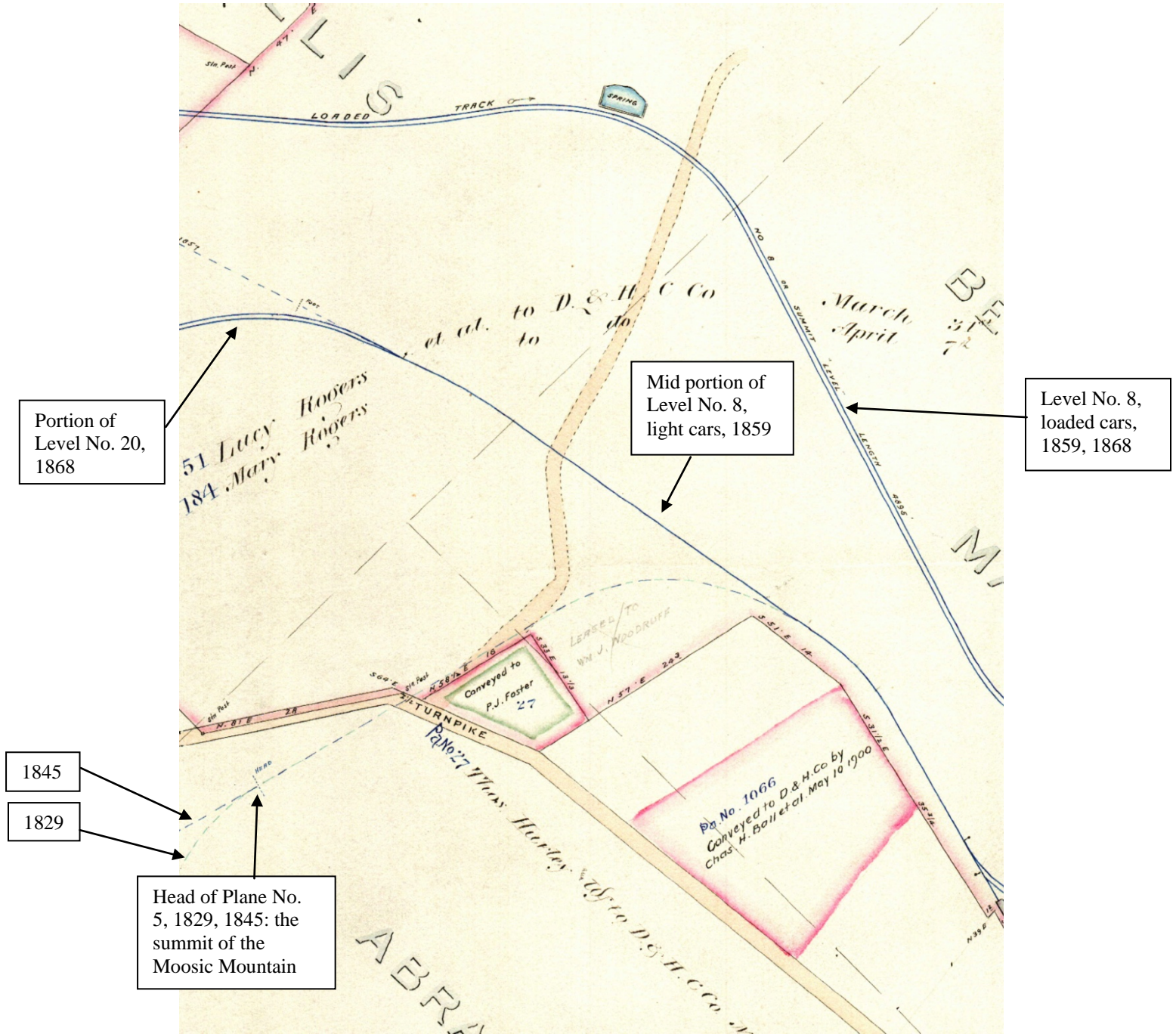
In the *D. & H. Deed Book – Wayne*, on page 280, there is a map that illustrates the deed, pp. 276-79, dated March 31, 1857, between Lucy Rogers and the Delaware & Hudson Canal Company. On that map, in the view given below, we see both the loaded and light levels on Plane No. 8 as well as the head of Plane No. 9.



In the detail from the 1895 Gravity Railroad map volume shown below, we see both the Summit Level (loaded cars) and No. 8 Return Track (light cars). The return track, remember, is headed downgrade in the direction of the head of Plane No. 8.



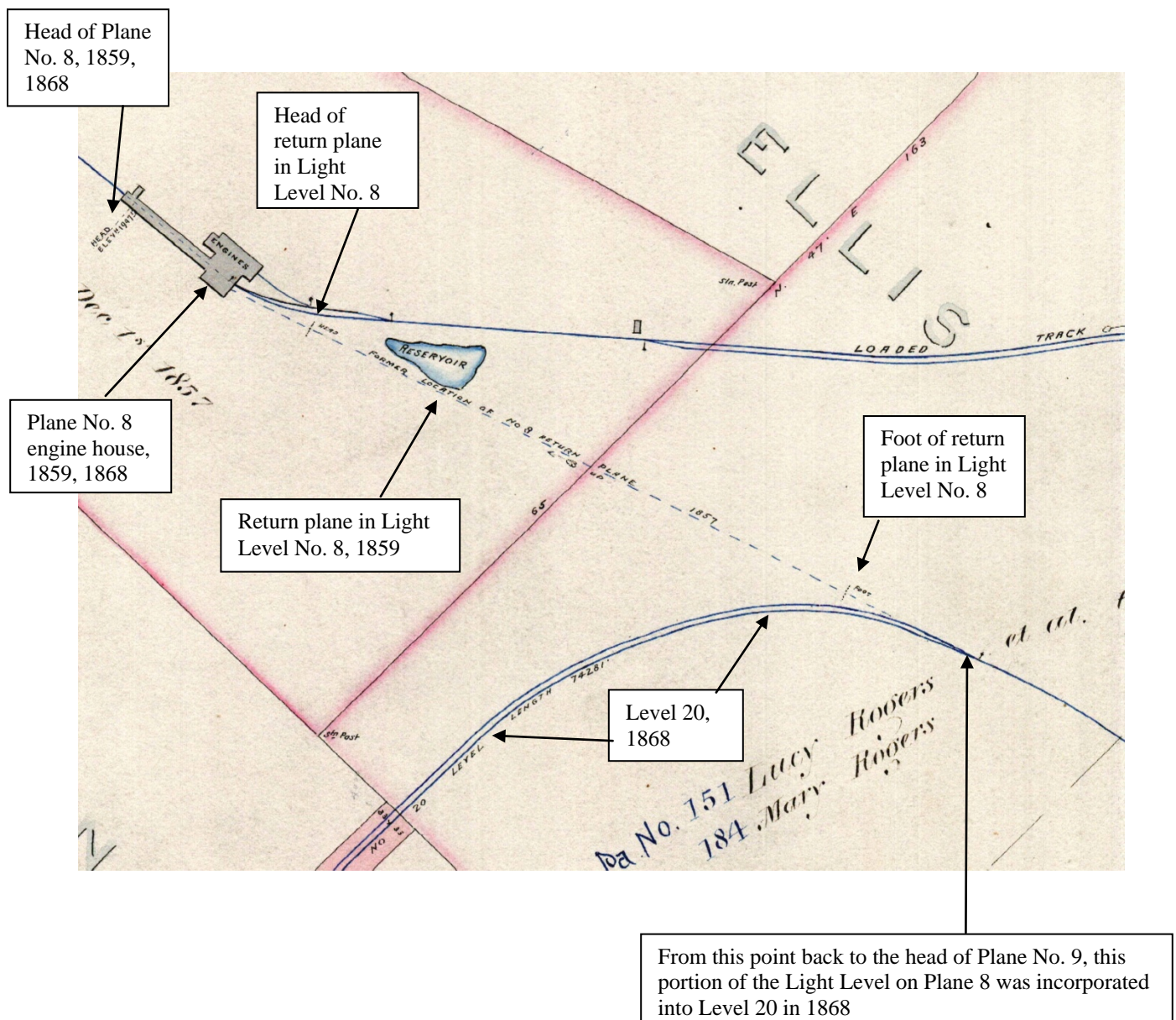
In this detail, we see the mid-portion of Return Level No. 8.



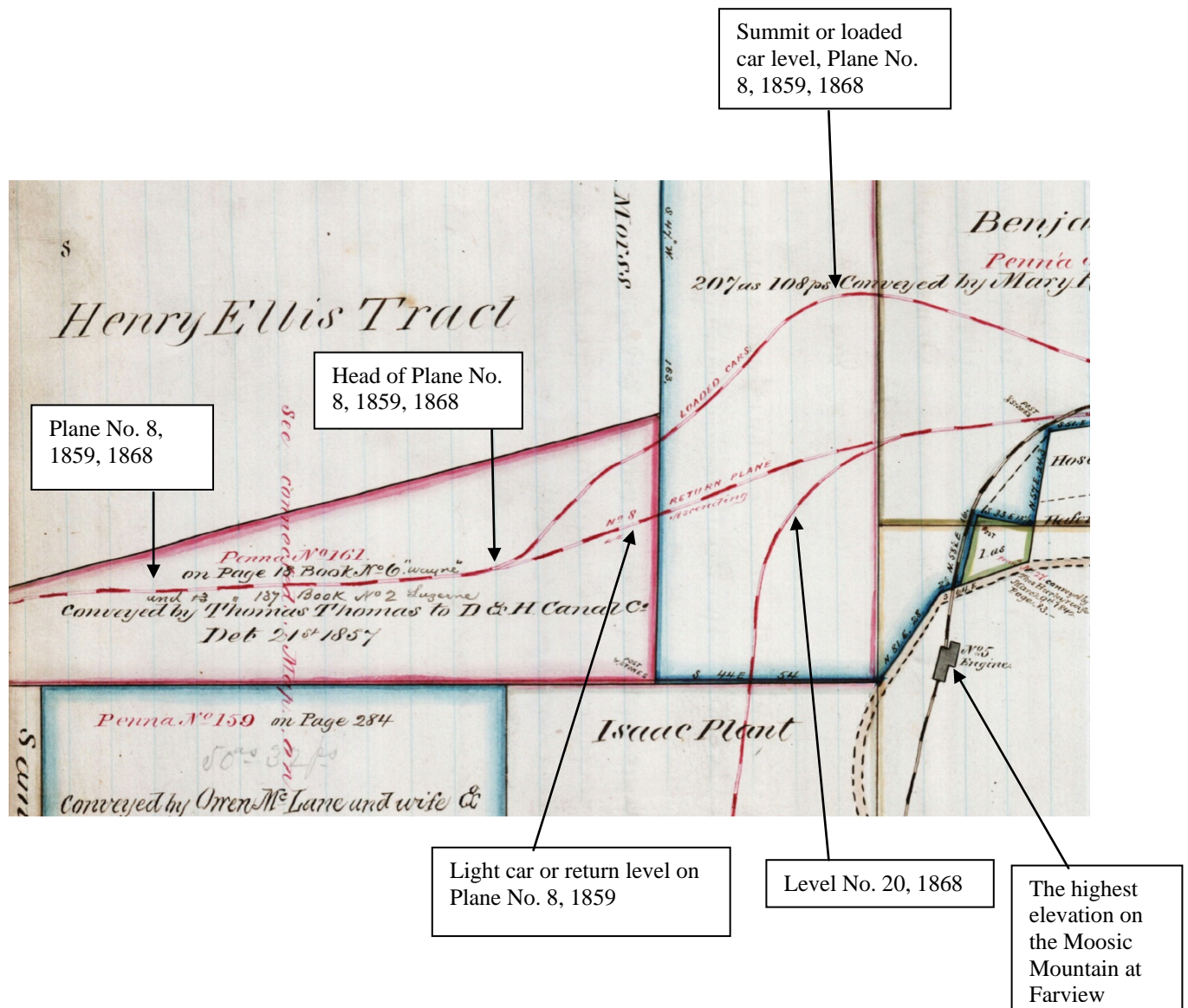
Note the distance between the Summit Level (loaded cars) and the No. 8 Return track (empty cars). (On the levels on Planes 1-6 (1859), the loaded and the light car tracks were on the same roadbed. On both Planes 7 and 8 (1859), the loaded car level and the light car level were, for the most part, detached/on separate roadbeds.

The point was to arrange the tracks so that the empty cars moved from East to West under gravity, without the use of any supplemental power (horses). And so the cars headed off to the West, downgrade, with their destination being Plane No. 8.

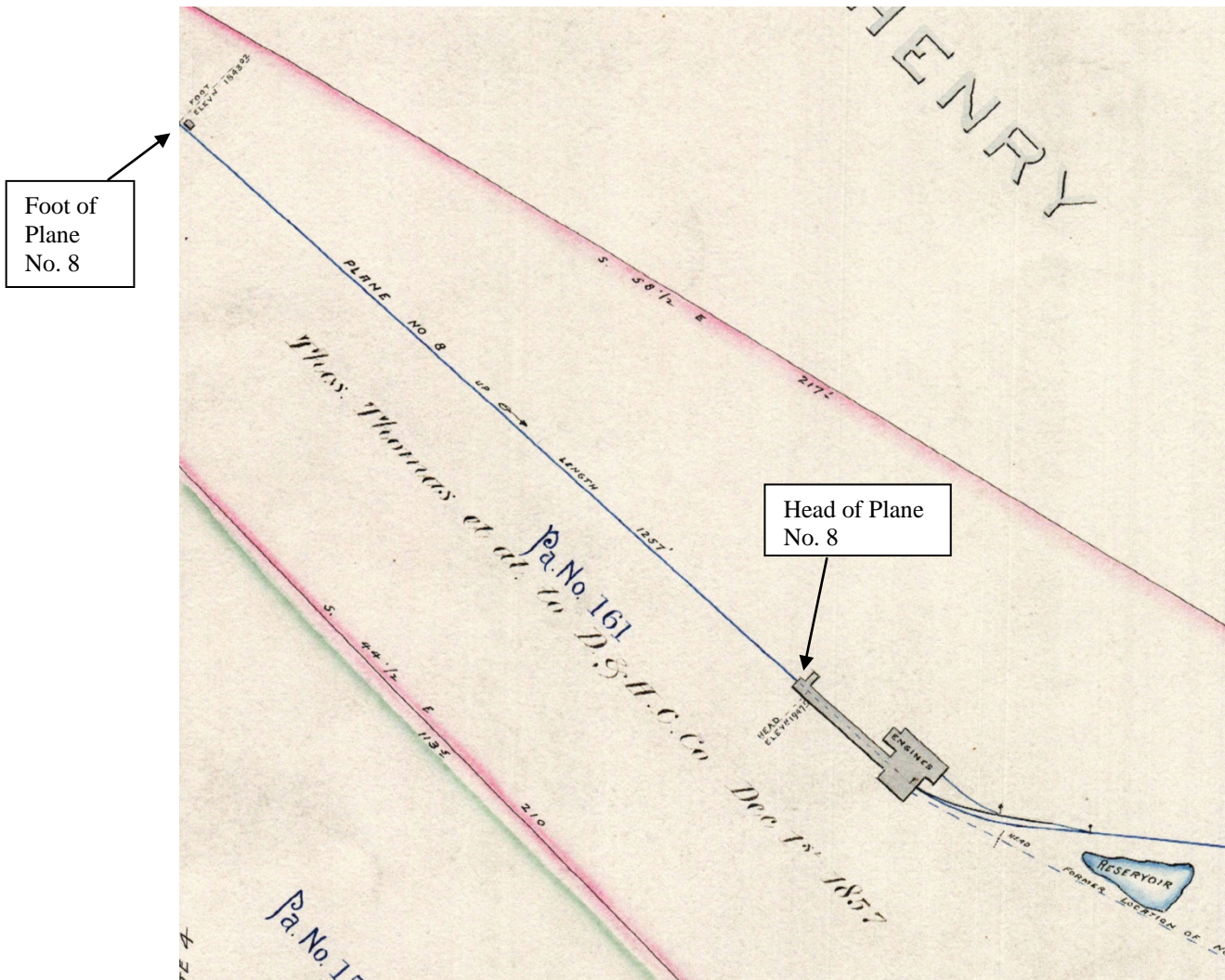
The empty cars on the return/light level on Plane No. 8 went downgrade from the head of No. 9 to the point where the forward movement of the cars “almost came to an end.” At that point, the “point mort,” the empty cars were raised by a short *return plane* (the foot of which was at the “point mort”) to the head of No. 8 plane, and these cars were then lowered down No. 8 Plane to the return/empty car level on No. 7 and then Plane No. 7.



In the view given below (D and H Deeds PA), we see the "loaded" and "light" levels on Plane No. 8 at their point of juncture with the head of Plane No. 8.



Once the empty cars were returned to the head of Plane No. 8, they were sent down through the plane and entered Level No. 7, on their journey East-West across the top of the Moosic Mountain.



Photograph, August 14, 2013, by the author of the location of engine house at the head of Plane No. 8:

Location of engine house at the
head of Plane No. 8, 1859, 1868



Reservoir near the head of Plane No. 8: two photographs by the author on August 14, 2013.

(1)



(2)



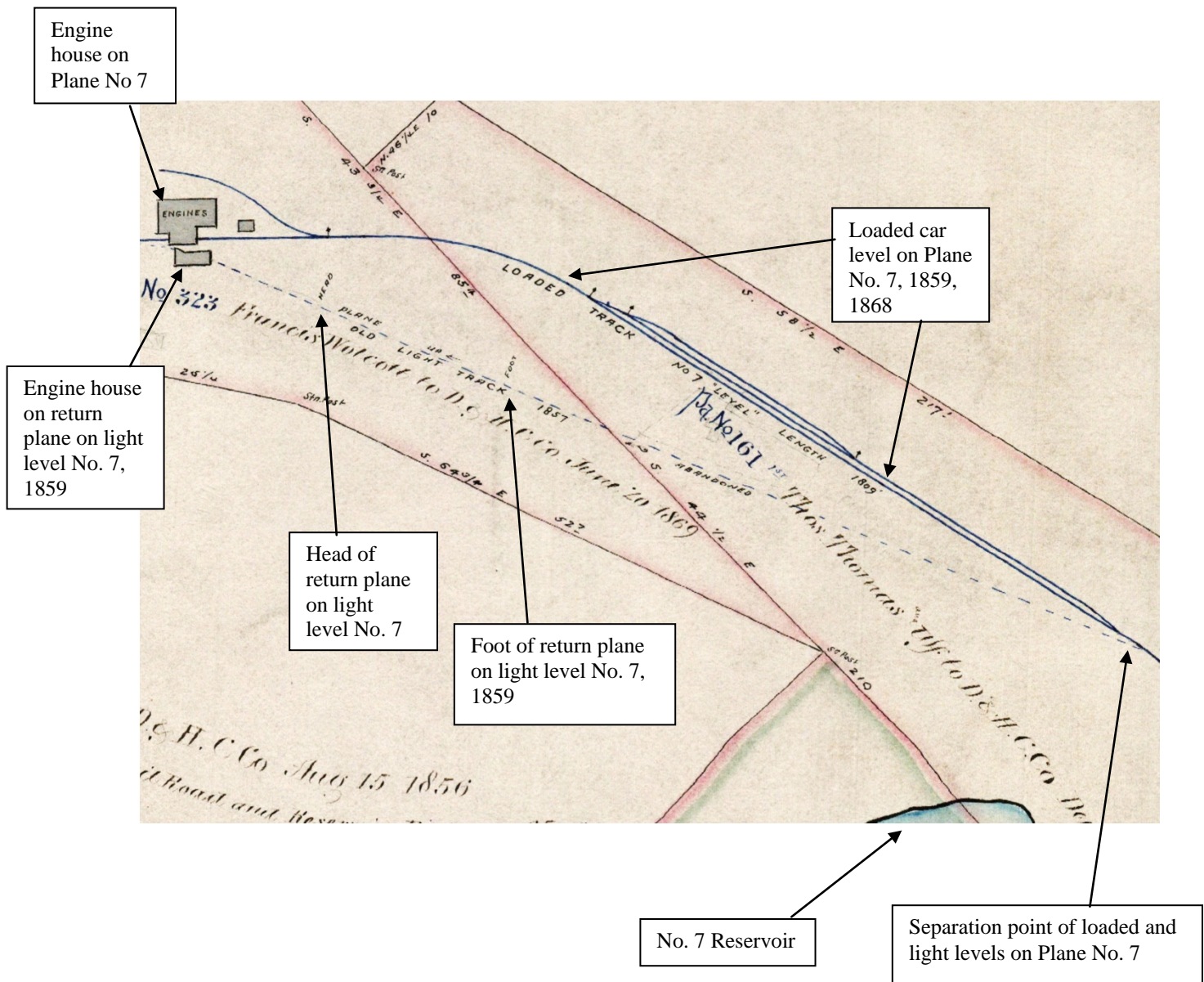
5915

Return Plane on No. 7

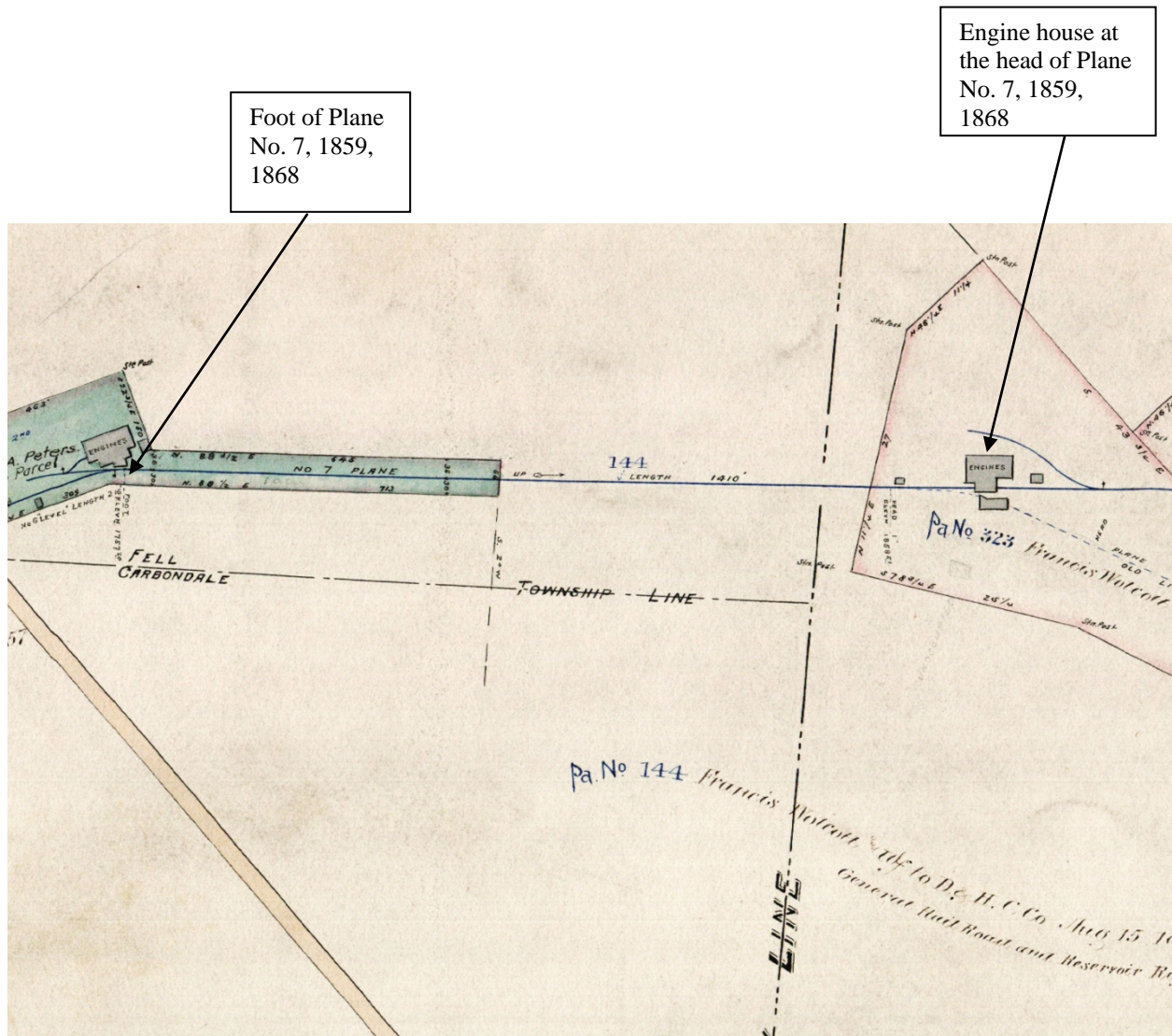
At the foot of Plane No. 8, the light cars entered Light Level No. 7, which went downgrade for a portion of the level side-by-side with the loaded level. At the point where the forward movement of the cars “almost came to an end.” the empty cars were raised by a short *return plane* (the foot of which was at the “point mort”) to the head of No. 7 plane, at which point the empty cars were lowered down No. 7 Plane, and entered the light level on Plane No. 6, and from there on down the mountain.

From that point, the return levels (including the one on 6) on the planes down to Carbondale were structured on a downgrade (and still remain side-by-side with the loaded level), which would have made it possible for the empty cars to roll by gravity from the foot of Plane No. 7 all the way down the mountain, through the planes, by gravity, i.e., without any expenditure of energy to propel them.

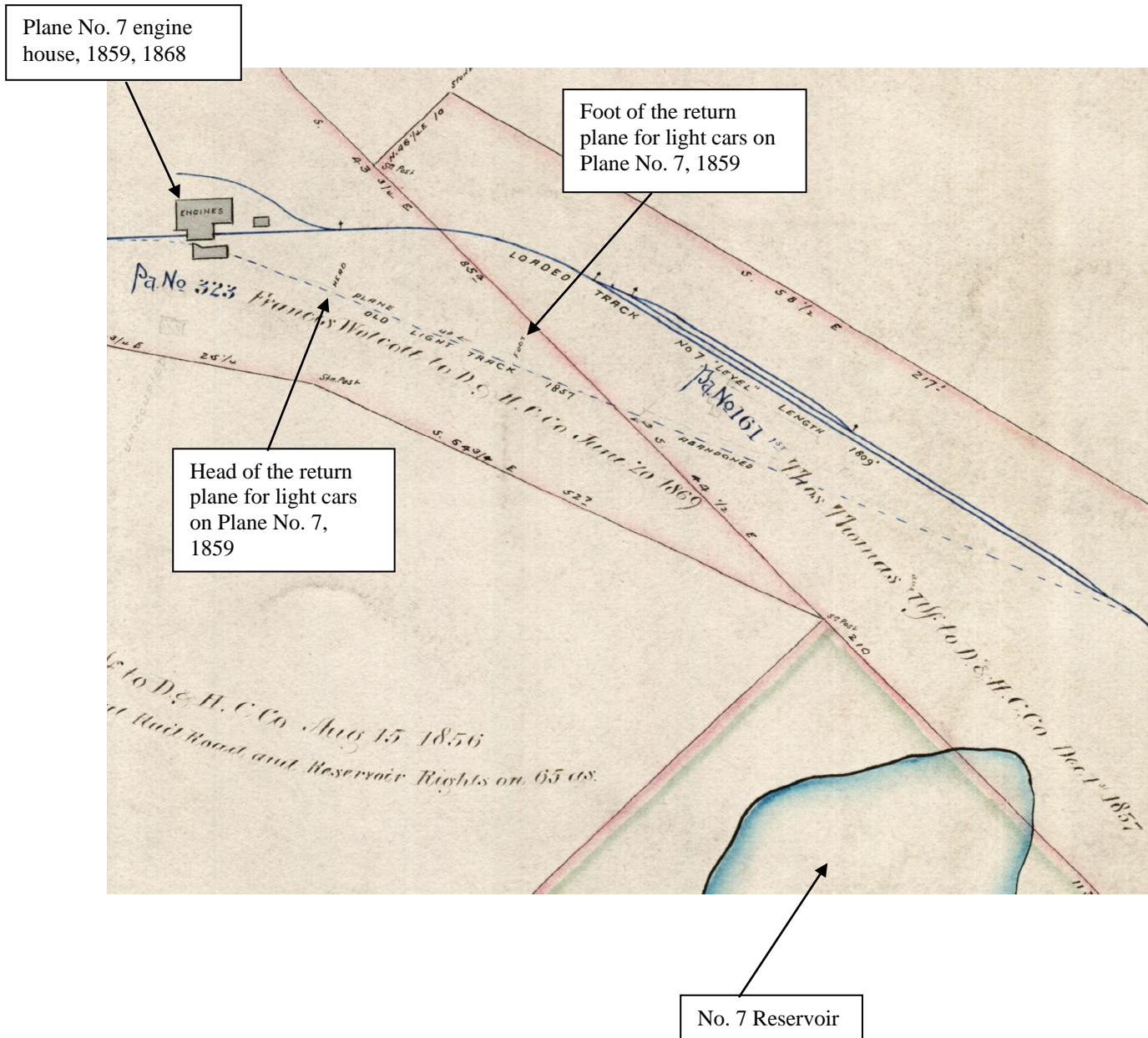
On the map detail from the Gravity Railroad map volume given below, we see the point where the light level on Plane No. 7 cut away from the loaded level. We also see all of the return plane, by means of which the empty cars were raised to the head of Plane No. 7.



When the empties arrived at the head of Plane No. 7, they were sent down that plane and then into Level No. 6 and on down the mountain. Here is a view of all of Plane No. 7 from the Gravity Railroad map volume.

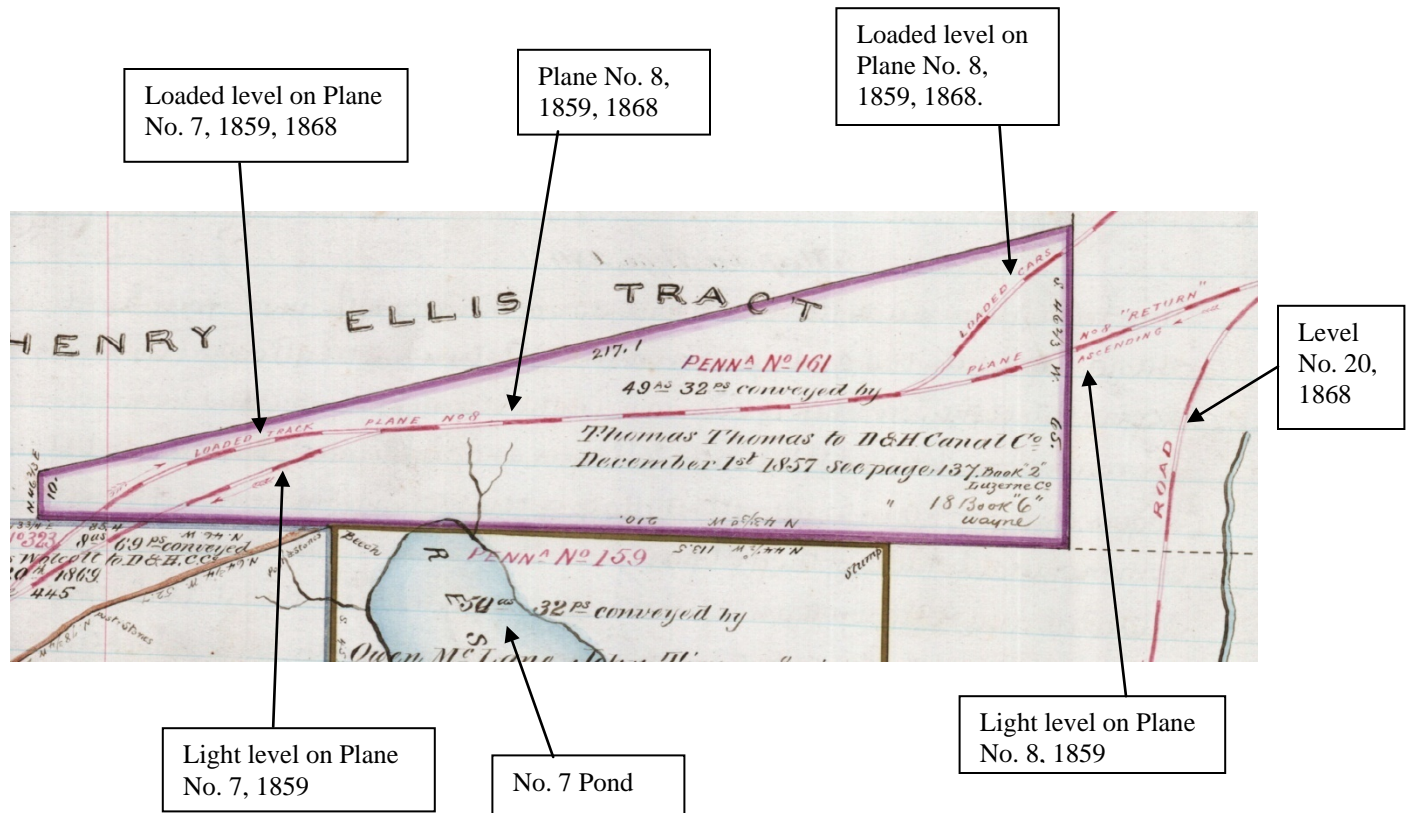


Here is a view of all of the return plane for light cars on Plane No. 7.



Summary view of Return Levels No. 8 and No. 7:

Here, on one map, we see a great deal of what we have just described for Light Levels No. 8 and No. 7. This map illustrates the release, dated August 11, 1856, between Henry Edgett / Horatio N. Edgett and The Delaware and Hudson Canal Company. That release is given on page 274 of *D&H Deeds PA*; the map on page 275.



It is easy to see how these innovations on return levels 8 and 7 led to the 1868 level from the head of Plane 20 to Archbald. All that had to be done was to detach completely the light track from the loaded track, *et voila*.

In 1859 the return levels (on 8 and 7) were beginning to liberate themselves from the loaded levels on those two planes, and nine years later (1868) that separation would be complete.

Levels 7 and 8, especially 8, were very long, and if the two tracks on each level were kept close together, some power source would have been necessary to move the empty cars to the West/upgrade, however slight the upgrade. Horses were out. So the D&H used gravity—send the cars downgrade as much and as long as possible as they move West. When they have gone as far

West as practical, raise them up a little (by a *return plane* to the head of the next plane) and send them on their way again. The engines on the two short/*return/empty car planes* (one on 8 and one on 7) were surely engines that had been removed from the old planes there when the eight new engines were installed in the 1859 configuration.

Remove the two short planes on the empty car/return levels 8 and 7, and separate the loaded and light tracks on the planes down the mountain to Carbondale, and carefully structure the descent of the light track down to Carbondale from the summit, and what do you have? You have, in effect, the 1868 light track (Level 20).

Accidents, Facts about the Plane, Daily Life

Runaway on Plane No. 8:

“That Gravity is ahead of Locomotive speed was demonstrated on Plane No. 8 upon our Railroad, on Thursday afternoon. Two of our Machinists, Thomas Hurley, Jr., and Matthew Watt, in coming down that plane on a hand car, losing some of their break sticks, gravity got the advantage of them, and they descended with a rapidity which throws locomotive speed in the shade. To avoid the effects of a collision at the Foot, they jumped from the car, and thus escaped with slight injuries.” (*Carbondale Advance*, April 30, 1859, p. 2)

Warren D. Berry killed in accident at Peckville:

"FATAL ACCIDENT.--We regret to learn, that WARREN D. BERRY, a much esteemed citizen, residing recently near No. 8 on the summit, was run over by the cars on Wednesday at Peckville and instantly killed." (*Carbondale Advance*, Saturday, December 22, 1866, p. 2)

5916

Planes Farview to Waymart, 1859 and 1868

1859: There were three double-tracked planes (one track for loaded and one track for light) down from Farview to Waymart, Nos. 9, 10, and 11. These three double-tracked planes were replaced in the 1868 configuration by four single-tracked planes (Nos. 9, 10, 11, 12) for loaded cars. In the 1868 configuration, three single-tracked up-hill planes, Nos. 18, 19, and 20, were installed next to Nos. 9, 10, 11, and 12 for raising the empties. The source for those facts is W. E. Anderson, who is the leading authority on the Gravity Railroad on all questions.

“The increasing development of the company’s mines taxed the capacity of the railroad and, in 1866, the three double track planes between Farview and Waymart were replaced by four single track planes. Numbers Nine to Twelve, for lowering the loaded cars and three single track planes, Numbers Eighteen to Twenty, for raising the empties. . . Grateful acknowledgement is made to W. E. Anderson, assistant engineer, who, in his long association with the Company, has gathered and preserved valuable information embracing the construction and operation of the Company’s lines for various periods of their development, and, from his notes, has furnished the material for this article.” (Our Own ‘Gravity Road’, pp. 9-10, *The Delaware and Hudson Company Bulletin*, July 15, 1925)]

Plane No. 9

--What do we know?

--this was the first of the three downhill planes from Farview to Waymart in the 1859 configuration.

Accidents, Facts about the Plane, Daily Life

Silas K. McMullen killed in an accident:

"A melancholy accident occurred at No. 9 Gravity Plane on the line of the Del. & Hud. C. Co.'s Railroad on Saturday, Sept. 29th. Silas K. McMullen, who had charge of the machinery, was killed almost instantly, while in the act of oiling the machinery. The skirt of his coat was caught under the rope while passing over a large shive, dragging him into the machinery. He lived about eight minutes after the accident, but never spake. He leaves a wife and family and a large circle of warm friends to mourn his sudden and untimely end." (*Carbondale Advance*, October 6, 1860, p. 2)

In the biographical portrait of Silas A. McMullen (one of the sons of Silas K. McMullen) that is given in *Portrait and Biographical Record of Lackawanna County, Pennsylvania*, pp. 465-466, we read the following about Silas K. McMullen on page 465: "His (Silas A.) father, Silas K., who was born in 1809 in Mt. Pleasant Township of the same county [Wayne County] followed the trade of a carpenter and as early as 1827 was in the employ of the Delaware & Hudson Canal Company in the construction of the original Gravity Railroad from Carbondale to Honesdale. Later he was engaged in the lumber business. From 1849 until the time of his death [1860] he was employed in various capacities with the Delaware & Hudson, but in 1860 was accidentally killed while running a stationary engine on the Gravity road. He possessed a quiet and retiring disposition, and those who knew him best found him to be a man of true sterling worth. He had several brothers, all of whom served in the Civil War. / The McMullen family is of sturdy Scotch ancestry and its members have born an honorable part in their respective generations, their principal occupation being agriculture, especially during the early history of this country."

Silas K. McMullen was the father of (1) **Silas A. McMullen**, who served as assistant superintendent of the Pennsylvania Division of the Delaware & Hudson Railroad from 1869 until at least February 1900, when his brother William J. McMullen (see immediately hereafter) was killed in an accident at Panther Bluff. For additional information on Silas A. McMullen, see the volume on the 1868 configuration of the Gravity Railroad by the present author; and (2) **William J. McMullen**, who in 1884, after working for the D&H for more than 20 years, was named train and road master of the Gravity Railroad, a position he held until his death in a railroad accident at Panther Bluff in February 1900. For specific details on this accident, see the volume on the 1899 configuration of the Gravity Railroad by the present author. For additional information on William J. McMullen, see also the volume on the 1868 configuration of the Gravity Railroad by the present author.

Plane No. 10

--What do we know?

--this was the second of the three downhill planes from Farview to Waymart in the 1859 configuration.

Accidents, Facts about the Plane, Daily Life

Eliphalet Babcock killed trying to save his horse:

"An accident occurred at Plane No. 6 [should read No. 11], on the D. & H. R. R., near Waymart, on Tuesday last, by which a man named Eliphalet Babcock lost his life. We understand that the rope used in drawing the cars up Plane No. 7 [should read No. 10] broke, allowing them to run down that plane, through the head house of No. 6 [should read No. 11], and then down that. On reaching the foot of the last named, Mr. Babcock, who was standing there with a horse, was run over and literally cut in pieces. The horse was but slightly injured.—*Wayne Co. Herald.*" (*Carbondale Advance*, July 18, 1863, p. 2)

"There was an error in the account published last week as to the cause of the melancholy accident resulting in the death of Mr. Babcock, near Waymart. It was the shaft of No. 10, not the rope, that broke. It let the cars through No. 11, and down the plane to the foot, where Mr. Babcock was killed in his efforts to save his horse." (*Carbondale Advance*, July 25, 1863, p. 2)

Plane No. 11

--What do we know?

--this was the third of the three downhill planes from Farview to Waymart in the 1859 configuration.

Accidents, Facts about the Plane, Daily Life

John Benjamin killed on Plane No. 11:

"On Thursday, we learn that John Benjamin, residing on the 'Summit,' was killed by a similar accident [falling upon the track before a train of cars] upon No. 11 plane. We are not informed of the full particulars . . ." (*Carbondale Advance*, August 14, 1858, p. 3)

Lightning strike on Plane No. 11:

"A THUNDER SHOWER—ELECTRIC CHARGE—We were visited by a slight thunder shower on Saturday last about 5 o'clock, P.M.—probably among the last of this season. During the shower some Machinists and others in the employ of the Company, while engaged in removing a wire rope on Plane No. 11, near Waymart, received a strong electric charge. The charge was powerful enough to prostrate several of them—but none were permanently injured." (*Carbondale Advance*, October 15, 1859, p. 3)

James Kelly killed at the foot of Plane No. 11:

“James Kelly of Waymart was so badly hurt while unhooking at the foot of No.11, on Friday, 18th inst., that he died the same night. Drs. Ottman and Foote of this place, and Niles of Waymart, were called, but his injuries were so severe as to preclude hope of recovery.” (*Carbondale Advance*, May 26, 1860, p. 2)

5919

Ten-Mile Level

--same as in 1843

--in 1859 the Ten-mile Level would have been, technically, Level No. 11.

Accidents, Facts about the Plane, Daily Life**Richard Adaman killed on the railroad as he was returning from work:**

“Mr. Richard Adaman, of Honesdale, was instantly killed upon the Railroad on Thursday night of last week, as he was returning home from Prompton. He was working at Prompton during the day at painting, and accustomed to return home at night upon the last train of cars. Upon this occasion, while running behind the train to overtake it, he fell into a cow pit, and being stunned, was just upon the track when another train of a few cars following close upon the other came upon him, and, passing over, crushed and mangled him in the most terrific manner. Mr. J. Rouse, a German, upon the second train, in attempting to rescue him was also severely injured, but is still living.” (*Carbondale Advance*, July 23, 1859, p. 3)

5920

Planes Nos. 13-17**Light track Honesdale to Waymart: Planes Nos. 13-17**

--the levels on these planes descended 6 inches in 54 feet.

--described in some detail in the volume in this series on the 1843 configuration, pp. 105-148.

Whiting on the 1859 Roadbed:

“... in 1856 the present planes and ‘levels,’ from the foot of No. 1 to the head of No. 10, were commenced. This arrangement employed eight planes up the mountain from Carbondale to the summit, and all of the planes were renumbered as they are at present. / About this time, too, steam was substituted for water power at the planes using water wheels. . .” Cassier article by Whiting

Summary Description of New Light Track by James Archbald:

In his letter of February 1847 to President John Wurts, James Archbald said the following about the engines on the light track from Honesdale to Waymart: “On account of the hilly nature of the country, five engines were required for the ten miles, four of which were originally steam

engines, and one a water-wheel. In making locations for these engines, we kept in view the economy of water in comparison with steam-power for this kind of work, and were so fortunate as to find situations for all of them, (except the one at Honesdale), where water could be used whenever the owners of it would sell at prices which it might be expedient for the company to pay. Last year [1846] we accordingly made a purchase which gave us the control of water for one of these engines, No. 5 [No. 17], and changed it for a water-wheel. This year [1847] we have been able to purchase land, giving the control of water the other two engines, one of which we shall change this winter, and the other the winter following, when four of the five engines will use water to do their work.”

Summary Description of New Light Track from *Century of Progress*:

“For returning the empty cars, from Honesdale to No. 7, he [James Archbald] constructed a new track upon a different location, and on this employed stationary engines to draw up the cars to elevations from which they would move by gravity to the point at which they could be moved by the next engine in the series. On account of the rugged country, five of these stationary engines were installed to operate the ten miles of new track. At first, four of these engines were driven by steam and one by water. By 1847, however, two of them were operated by water power [water-powered hoisting engines], which was found to be cheaper. During 1847, Mr. Archbald intended to change one of the remaining three to water power, and he planned to change another to water power early in 1848.”[water wheels are shown on Planes 14, 15, 16, and 17 on the 1895 map] *COP*, p. 135-36.

When were the waterwheels removed on these planes? Dr. Steers says it was in 1863. Not so. It was 1868. See article below.

Dr. Steers says (p. 163) the following of the water wheels on the D&H: “Water wheels on the Delaware and Hudson Canal Co. railroad with one exception were known as Rose wheels. They were 20’ in diameter by 20’ wide and undershot in function. The wheel at No. 17 [originally called No. 5] differed only in that it was 30’ in diameter. All the water wheels were replaced by steam power in 1863 [not so; it was 1868, see below].” (“The Delaware & Hudson Canal Company’s Gravity Railroad,” *Proceedings of the Canal History and Technology Symposium*, Volume II, March 26, 1983, pp. 129-203).

Water wheels not used on the D&H after 1868:

“The Del. & Hud. Canal Co. have just put a stationary steam engine in at Plane No. 14, on their railroad, in place of the old water power. The engine was built at the Dickson Works, Scranton, and has been placed in charge of Silas Hoyle as Head Engineer and Walter Bryant, Assistant. The company now work the cars on all their planes by steam power.—*Herald*” (*Carbondale Advance*, Saturday, February 8, 1868, p. 3.)

Summary Statement

Water wheels and stationary steam engines on planes Planes 13-17:

1845: four of the planes (Nos. 13, 15, 16, 17) had steam engines and one a water wheel (No.14): James Archbald's original plan was to have the engines on all five of these planes operated by water wheels, but water rights were either too expensive (Plane No. 13) or could not be obtained (Nos. 15, 16, 17).

1846: water wheel installed on Plane No. 17, which meant that three had steam (Nos.13, 15, and 16) and 2 water (Nos. 14 and 17)

1847: one more to water power (No. 15 or No 16): now three by water and two by steam

1848: one more to water power (No. 15 or No. 16): now four by water and one (No. 13) by steam

1868: the water wheel on No. 14 replaced with a steam engine: now all five had steam

A large body of information on Planes 13-17 is presented in the volume in this series on the 1845 configuration of the Gravity Railroad, pp. 105-148.

Over the years, there were lots of changes to the motive power on these planes. When they were opened in 1843, four of them had stationary steam engines at the heads of the planes and one of them had a water wheel. In 1846, three had steam and two had waterwheels. In 1847, two had steam and three had water. In 1848, one had steam and four had water wheels. In 1868, all five had stationary steam engines. The general movement: stationary steam engines to water wheels to stationary steam engines. When these planes opened, it was James Archbald's intention that they all be powered by water wheels (only No. 14 was), but water rights were either too expensive (Plane No. 13) or could not be obtained (Nos. 15, 16, 17). The 1895 Gravity Railroad map volume shows the water wheels on Planes 14, 15, 16, and 17, as well as the stationary steam engines by which they were replaced (no water wheels after 1868 on the D&H). But it is important to keep in mind as one looks at the 1895 Gravity Railroad map volume that the water wheels shown on these four planes (14-17) were preceded by stationary steam engines, which are not shown on the maps. The stationary steam engines shown on the maps are the ones that were installed after the water wheels were removed.

What were the changes that were made to Planes 13-17 at the time of the 1859 configuration?

Plane 13 (see 1845 Configuration, pp. 105-116)

There was never a water wheel on this plane, even though the D&H could have installed one if water rights to make that possible had not been so expensive. When this plane opened in 1843,

there was a high trestling on the level of this plane. Maintenance problems were such on this level that in 1848 the D&H did away with the trestling and changed significantly the level on Plane No. 13. Instead of passing across the open end of the horseshoe there (see p. 105, 1845 Configuration) the new track for the level on Plane No. 13 went up the valley of the Cadjaw Pond Brook and around the horseshoe bend, and then reconnected with the original level, to the roadbed of which slight modifications were made at this time (in the Seelyville Pond area, for example, to facilitate the gravity movement of the empty cars to the foot of Plane No. 14). The new level was 2,436 feet longer than the original level, the new level being 14,238 feet long with a fall of 126.18 feet. In order to make workable these modifications to Level No. 13, Plane No. 13 itself had to be lengthened 85 feet and made 15 feet higher at the head of the plane.

Plane 14 (see 1845 Configuration, pp. 117-123)

--water wheel there when light track opened in 1843; waterwheel replaced by steam engine in 1868, and minor adjustments to the track were made at the foot of the plane when the water powered hoisting engine was removed and the stationary steam engine was installed.

Plane 15 (see 1845 Configuration, pp. 123-128)

The location of the "Old Water Wheel," which powered this plane (called No. 3, i. e., the third plane out of Honesdale, i. e., No. 15) is shown in the 1895 Gravity Railroad map volume. . The "Old Race" (dotted lines) from the Lackawaxen is also shown. The location of the plane associated with this water wheel is also shown. When the stationary steam engine was installed at the foot of this plane, a new plane was installed up the mountain not far from the original plane, and this is the plane we see in the 1895 Gravity Railroad map volume. Level No. 15 remained largely unchanged. Note that Plane No. 15 (1,312 feet long) is a little to the south of the "Original Location of Plane No. 3 [the third plane out of Honesdale, i. e., Plane No. 15] 1843-1857."

"John H. Ames was the ninth child of Joseph Ames. He was born in 1833 in Canaan Corners, Wayne County. He attended public schools and at the young age of nine became a driver for the Delaware and Hudson Canal Company between Summit and Carbondale. He learned carpentry and was in charge of building engine house No. 15 on the Gravity Railroad. He later settled in Hawley." Jerry Palko notes.

Plane 16 (see 1845 Configuration, pp. 129-141)

Minor roadbed adjustments made at the foot of the plane when the water wheel was replaced with a stationary steam engine.

Plane 17 (see 1845 Configuration, pp. 141-148)

Minor roadbed adjustments made at the foot of the plane when the two water wheels at the foot

of this plane were replaced with a stationary steam engine. Significant adjustments were made at the head of this plane in 1865, when the head of the plane was moved and the length of the plane increased to 6,689 feet. It was at this time that the snow sheds on Level No. 17 were installed.

5921

Technology Upgrade

Four technological improvements/upgrades were instituted at this time which, together with the reconfigured roadbed, made it possible to increase the quantity of coal shipped through the system.

5922

1. Iron T-rails instead of strap rails

Iron T-rails replaced strap rails over most of the D&H Gravity Railroad in 1858. The T-rails gave much greater strength to the roadbed and heavier loads were inaugurated. These T-rails, we learn from Part 5 of E. D. LeRoy's series of articles were manufactured in Scranton:

". . . [1858] There were no changes of importance made in the light track east of the summit, but one improvement was the replacement, throughout the length of the road, of the old wood and strap iron rails by the new 'T' iron rails manufactured at Slocum Hollow (Scranton). / In spite of these substantial improvements on the canal and the gravity railroad the demand for anthracite was growing so rapidly that it could not be met. . ." Part 5 of E. D. LeRoy's series that was reprinted from the *Department of Internal Affairs Bulletin* in the *Carbondale News* under the title of "Canal Value for Transportation Proved by 1830; Not So Railroads"

From an article published in the *Carbondale Transcript and Lackawanna Journal* on October 7, 1853, we learn that over five thousand tons of railroad iron from England arrived in New York "on Tuesday." What was the exact nature of this "railroad iron" from England? Was it crude/bulk iron that was to be converted into iron T-rails? Not sure. Whatever the case, five thousand tons of iron in one day into New York from England is impressive.

In any event here is that article:

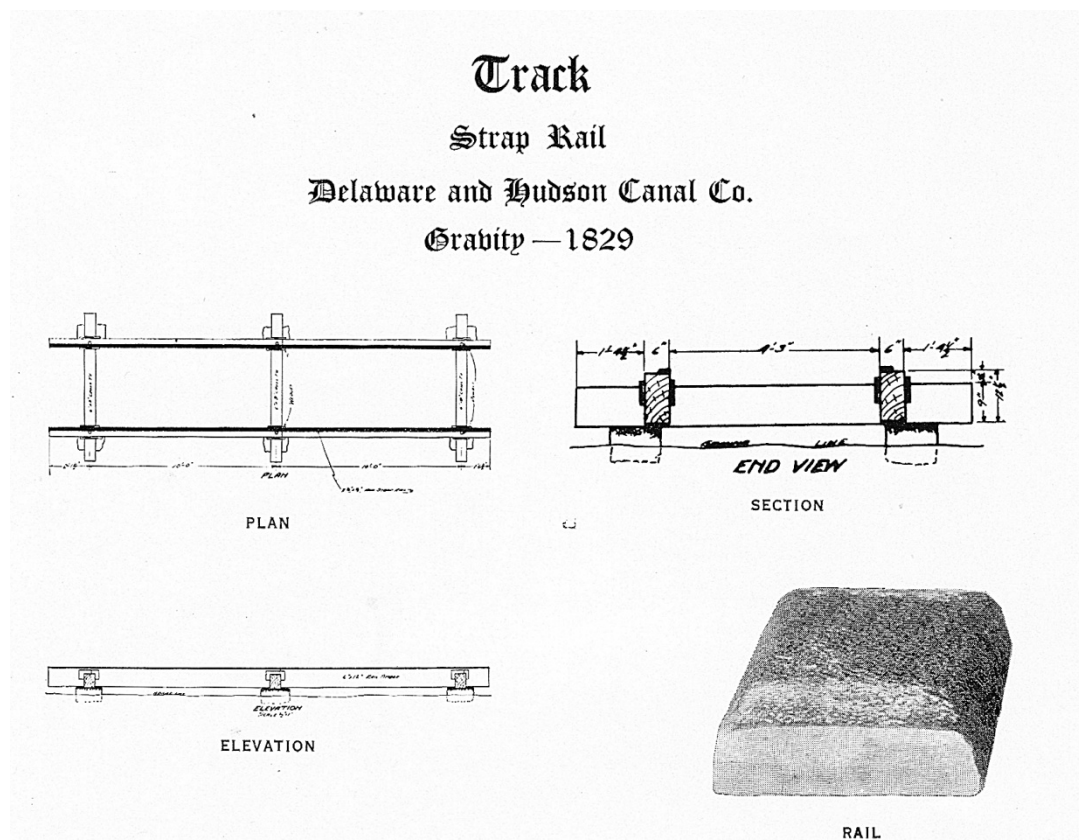
“Railroad Iron.—On Tuesday no less than eight vessels arrived at New York from England, with cargoes of Railroad Iron, viz: Ship Medallion, 893 tons; ship Amelia, 845 tons; ship Moro Castle, 782 tons; ship Champlain, 745 tons; barque Florence, 485 tons; barque Gleanor, 350 tons; barque Rainbow, 500 tons; and the barque Austin, 420 tons—making a total for the eight vessels of 5,020 tons.” (*Carbondale Transcript and Lackawanna Journal*, October 7, 1853, p. 3)

Strap Rails on the D&H: 1829-1858:

In an un-dated publication that was published by the Press of the Delaware and Hudson Railroad, titled *Track and Roadway*, on page 50, we read:

"TRACK / Strap Rail / Introduced in 1820 / To cheapen construction, the Strap rail was largely used on the early American railroads. / Notable is the first attempt at rolling the iron into shape for this purpose. / The Strap rail was a flat bar of rolled iron, of various sections, spiked down to a longitudinal wooden stringer, and is chiefly remembered for its unpleasant tendency towards the formation of 'snake-heads,' so called; the ends curling up and at times going through the floor of the car."

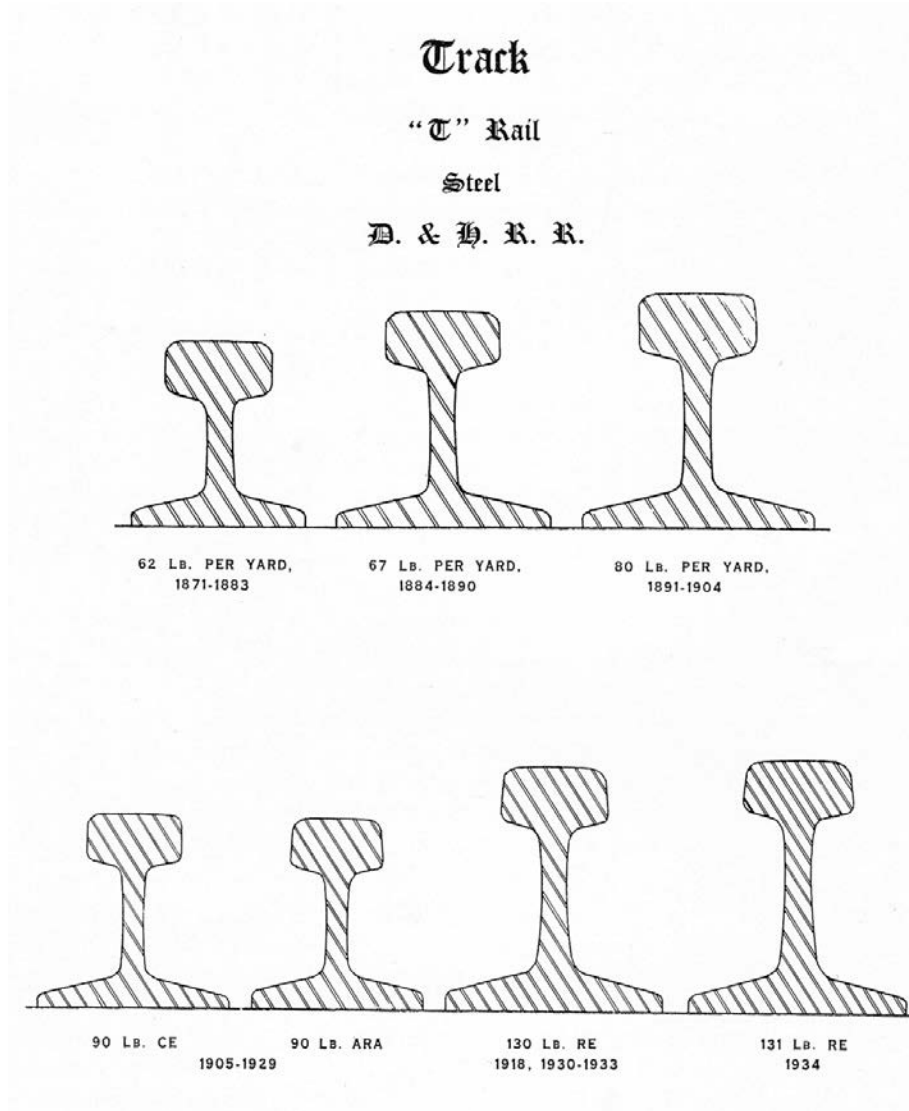
In the same publication, on page 51, is the following illustration of "Strap Rail / Delaware and Hudson Canal Co. / Gravity — 1829"



T-Rails on the D&H: 1858—present:

In 1858, the strap rails on the D&H were replaced with iron "T" rails. In the D&H's *Track and Roadway*, p. 60, we read the following about T-rail: "The 'T' rail was the next step in advancement from the 'Pear' pattern. The shape of the 'Pear' rail was found not to be well adapted for heavy service, account of the difficulty of attaching proper fastenings. Therefore after results of further experiments of both wear of rail and wheels, the present 'T' rail was finally adopted."

On page 61 of *Track and Roadway*, there are illustrations of seven different kinds of T-rails used on the D&H in the period 1871-1934. The weight per yard of these rails for that time period ranged from 62 pounds to 131 pounds. Here is that full-page illustration:



I have not read anywhere what the weight per yard was of the rails that were installed throughout the D&H system by 1858. It appears that it must have been 62 pounds/yard, or less (the weight of D&H rails in the period 1871-1883).

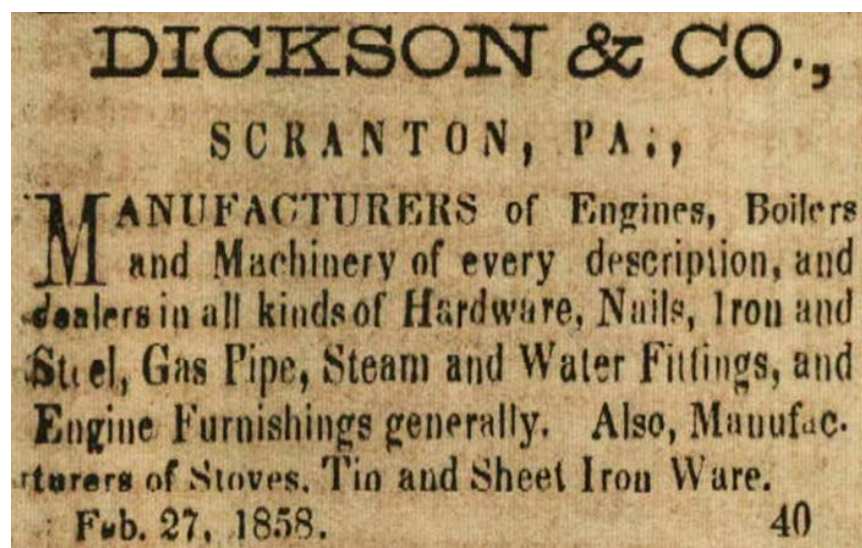
5923

2. New and more powerful stationary engines

The D&H purchased sixteen 75-horse power engines from the Dickson Manufacturing Company, Scranton, at this time (1857) for use on all planes. The first of these new engines was installed on Plane No. 4 in early August, 1857:

“No. 4 Engine, on the new railroad was put into operation a few days ago and works excellently. This is the first of eight to be placed on the road between here and Waymart. The engines, etc. are from the extensive Machine Works of Messrs. Dickson & Co., at Scranton, and are said to be of superior strength and finish.” (*The Advance*, August 13, 1857, p. 2)

Here is the Dickson & Co. card that was published on page 3 of the February 27, 1858 issue of the *Carbondale Advance*:



The editor of the *Carbondale Advance* reported in the same issue of that paper (February 27, 1858) that he had recently visited the works of Dickson & Co., and noted that "the eight new, large, and splendid stationary engines on the Delaware & Hudson Canal Company's new railroad were manufactured at the shops of Dickson & Co." (Construction of the Dickson Company began on January 29, 1856, and the Company began operations on May 29, 1856.)

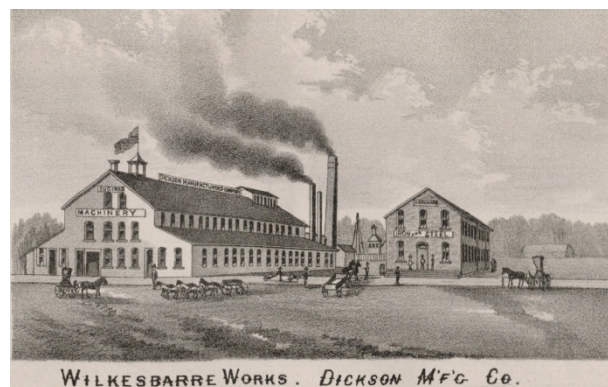
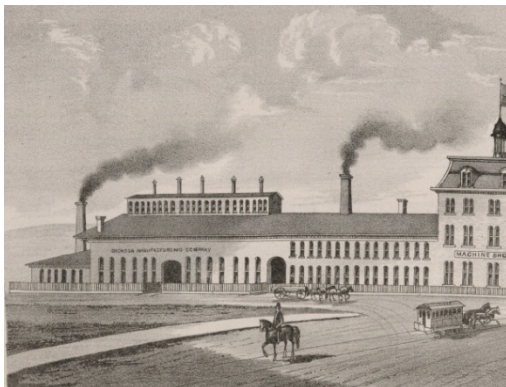
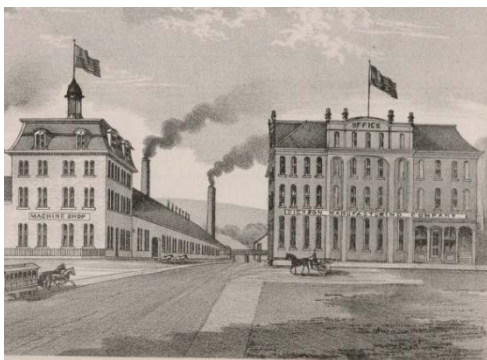
“We would call attention to the card of Dickson & Co. to be found in another column. It was our privilege the other day to visit the different shops which compose their establishment, and it is well worth the trouble of a visit to any one to see what labor and machinery can effect. Their operations are carried on with a perfect system and order, and work done there is unsurpassed by any establishment in the country. The eight new, large, and splendid stationary engines on the Delaware & Hudson Canal Company’s new rail-road were manufactured at the shops of Dickson & Co.” (*Carbondale Advance*, February 27, 1858, p. 2)

In 1857, the editor of the *Carbondale Advance* reprinted an article in his paper that was written by a reporter from the *Scranton Herald* about his visit to the works of Dickson & Co. in Scranton in 1857. During that visit by the reporter from the *Scranton Herald*, the new stationary steam engines for the D&H were then (1857) being built. Here is that article that was reprinted from the *Scranton Herald* in the *Carbondale Transcript*, and *Lackawanna Journal* on January 23, 1857, p. 2.

“Messrs. Dickson & Co.’s Works. / Last Monday we paid a visit to the works of Dickson & Co., and must confess that we were surprised at their extent. / The pattern room, which we first entered, is 40 by 120 ft. From fifteen to twenty men are employed here in making patterns for the various machinery and castings done at the shops. The room is heated by steam pipe. About 1400 feet of pipe is laid about the room for this purpose. We noticed two monster patterns,—one complete and the other nearly so.—a bed plate for an engine of 75 horse power. This bed is 18 feet long by about three or four wide, and the casting when finished, will weigh about seven thousand five hundred pounds. The other, a bed plate for various kinds of machinery that will weigh when done, about ten thousand pounds. A circle saw, and upright saw mill, and other machinery, are in operation to facilitate the work, &c. / Passing from the pattern room, we entered the machine shop below—93 by 120 feet. The machinery is driven by a 75 horse power engine. In this room are about thirty lathes for fitting the castings of all kinds of machinery. One of these lathes is probably the largest in the country. It will turn a shaft of iron four feet in thickness and twenty-four in length. By the side of it stands another that will turn a wheel sixteen feet in diameter. The remainder of the lathes are of various sizes and adapted to the turning of all kinds of machinery from the sizes above spoken of to the smallest used for any purpose. Three planes are used for planing iron of various descriptions. One of these is the largest in the country, its plate being 4 by 24 inches. We noticed a machine called a Slotter, for cutting key seats in heavy machinery, which is an immense tool. It took the premium at the World’s Fair in New York. / The above constitute but a small portion of the machinery in use here—we only note the largest and most remarkable. / Sixteen stationary engines of seventy-five horse-power each, are being built here for the Del. & Hudson Canal Co. [emphasis added] Adjoining this is a small room used by a draftsman in preparing drawings of the various machines to be built, from which the patterns are made. Under it is a well 42 feet deep from which a plentiful supply of water is obtained by a pump worked by the engine, and thrown in every part of the works. / A few steps from the machine shops stands the foundry—a building 50 by 80 feet. Every thing in the shape of a casting is cast here. It also contains a monster oven for baking the cores used in hollow castings. A brass foundry is attached to this for casting the various descriptions of that metal

used about the various parts of nice machinery. / Next we came to the blacksmith shops—40 by 60 feet. The forges are blown from a large fan in the machine shops about 100 feet distant. / Next we visited the boiler shops where are manufactured all kinds of steam boilers. Six monster boilers for the Lackawanna Iron Company are being constructed here. They are 63 feet long and three feet four inches in diameter / Next we visited the store house and offices not yet completed. This is 26 by 80 feet, and will be used for storing machinery. Patterns, &c., and also for offices. It is admirably arranged for the purpose. / We have thus briefly glanced at the various departments of these works. Everything is admirably arranged, and there is nothing in the shape of machinery that the Company is not prepared to do in the best manner. The object aimed at is completeness in all branches of machinery, and we should judge that the object has been well attained. / The most remarkable feature of this enterprise is the rapidity with which the work has been pushed on. Less than one year ago, (the 29th of Jan. last,) and on the 29th of May a heat was run off in the foundry. Very large excavation was required, and the masonry was also very heavy. Now the whole neighborhood is made noisy with the clatter of the hammer and the hum of machinery. About one hundred and thirty men are employed in the shops. The capital invested is one hundred thousand dollars. We trust the Company may realize the fondest expectations from their enterprise, for certainly energy like that which they have manifested deserves ample reward.—*Scranton Herald.*” (*Carbondale Transcript, and Lackawanna Journal*, January 23, 1857, p. 2)

Four views of the Dickson Manufacturing Company (Scranton and Wilkes-Barre) that are presented in the *City Atlas of Scranton, Pennsylvania*. (G. M. Hopkins, C. E., Philadelphia, 1877):



More about the Dickson Manufacturing Company and some of its employees:

Joseph W. Sando

1859, August: Joseph W. Sando secured employment with the Dickson Manufacturing Company. In July, 1896, he resigned, having served for twenty-four years as foreman in the works of the Dickson Manufacturing Company. Sando, who was born December 2, 1835 in Pottsville, was the son of Michael Sando, a native of Cornwall, England, and Jane Gould, who was born in Devon, England. We learn more about the work career of Joseph W. Sando at the Dickson Manufacturing Company from his biography that is given on page 700 of *Portrait and Biographical Record of Lackawanna County Pennsylvania*, as follows: "In August, 1859, he came to Scranton and secured employment with the Dickson Manufacturing Company, manufacturers of locomotives, stationary engines, mining machinery, boilers, etc. In 1872 he was made foreman of the machinery department and continued in that capacity until the change of management, in July, 1896, when he resigned."

Sidney Broadbent. . . patented the Broadbent Breaker

1860: Sidney Broadbent, who was born on April 16, 1828 in Yorkshire, England, began working for the Dickson Manufacturing Company. In the biography of the man in *Portrait and Biographical Record of Lackawanna County Pennsylvania*, pp. 726-28, we read: "After thirty-six years and three months in the employ of the Dickson Manufacturing Company, during fourteen years of which he was general superintendent of the works, Mr. Broadbent resigned his position in 1896, and has since lived retired from active labors. He possesses considerable inventive genius and has devised a number of useful articles that he had had patented, among these being the Broadbent breaker roll, which has become the standard in its special line. . . He then [June 1857] became a member of the firm of William Cooke & Co., and started in the locomotive business at the Cliff works, where they built the first locomotive in Scranton. The business was afterward absorbed by the Dickson Manufacturing Company, and in November, 1859, Mr. Broadbent was transferred to the Penn Avenue shops as foreman. From that position he advanced gradually until 1882, when he was made general superintendent." Here is the likeness of Sidney Broadbent that is given on page 726 of *Portrait and Biographical Record of Lackawanna County Pennsylvania*.



George Linen Dickson and the Dickson Family

In Frederick L. Hitchcock's *History of Scranton* (Volume II, 1914), p. 22, George Linen Dickson is identified as the oldest banker of the Lackawanna Valley. He was born August 3, 1830 in Lauder, Berwickshire, Scotland, and was a son of James Dickson (born in Scotland, December 25, 1801, died in Scranton, age 79, he was a son of Sergeant Thomas Dickson) and his wife, Elizabeth Linen (born in Scotland, died 1866).

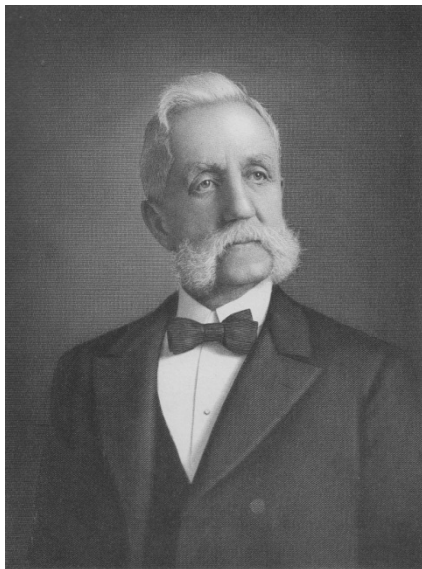
He (George Linen Dickson) served as president of the Dickson Manufacturing Company from 1867 to 1882. His brother, Thomas, worked for the D&H from 1859 to his death in 1884 (superintendent of the mine department, 1859-1864; in 1864 named general superintendent of the entire D&H works; in 1868 named president of the D&H, and served in that capacity until his death on July 31, 1884, at his summer residence in Morristown, NJ). His sister Mary married, first, Andrew Watt, and second, J. B. Van Bergen of Carbondale. His brother John Alexander, regarded as one of the expert mechanics in Pennsylvania, served as General Manager of the Dickson Manufacturing Company from its organization until his death, in 1867, in Scranton. Those extraordinary individuals were children of James and Elizabeth (Linen) Dickson who in 1832 emigrated to Toronto, Canada from Scotland. In Toronto, for two years, James Dickson was in charge of the machinery of a line of steamboats on Lake Ontario. When cholera broke out there and two of the Dickson children died of that disease (James and Elizabeth), the Dickson family moved to the United States.

In *Hitchcock*, 22, we learn that the Dickson family "came to the United States, reaching Rochester by boat [from Canada], then to Rondout, New York, by Erie Canal, thence by Delaware and Hudson canal to Honesdale, Pennsylvania, thence [presumably by means of the Gravity Railroad] to Carbondale, to Dundaff, finally reaching the farm owned by . . . George Linen [brother of Mrs. James Dickson]."

Mrs. James Dickson and the Dickson children (seven children, all born in Scotland; five grew to maturity) remained on the Linen farm in Dundaff for two years, 1834-1836, during which time James Dickson worked in New York. "He (James Dickson) then returned to the Lackawanna Valley for his family, intending to take them back to New York with him, but on reaching Carbondale, Scotch friends there residing persuaded him to remain there in charge of the machine shops of the Delaware and Hudson Canal Company as master mechanic. He remained in that position eighteen years, when he retired on a pension in acknowledgement of his valuable services." (*Hitchcock*, pp. 22)

In 1834, the family moved to Dundaff, PA; in 1836, to Carbondale, where James Dickson secured employment the machine shops of the Delaware and Hudson Canal Company; at the time of his death in 1880 he was the D&H general master mechanic.

"At the age of fifteen [1845] he [George Linen Dickson] became clerk [beginning work as a clerk on February 6, 1845] in a country store [that was established by his brother, Thomas, in Carbondale in 1845], but six years [1851] later started in business for himself, working under the name of G. L. Dickson Company, and selling out in 1856. He then formed a partnership with J. Benjamin, in what is now Van Bergen & Co., Limited. In 1860 he came to Scranton and formed a co-partnership with his father and brothers in what was incorporated as the Dickson Manufacturing Company in 1861. For a few years he was general manager, but in 1867 was promoted to the presidency and held that position until 1882, when he resigned." *Portrait and*



Biographical Record of Lackawanna County, Pennsylvania, pp. 456-457. George L. Dickson married [on September 16, 1856] Lydia [M.] Poore [born in Palmyra, Wayne County, NY], whose father, the Hon. John M. Poore [born in Essex, MA; aided in the construction of the Erie Canal through Chenango county as a contractor on that section in company with his father-in-law; in 1846 he located at Carbondale; died aged 80 years], served as mayor of Carbondale, 1857-1861. Lydia Poore's mother's father was E. M. Townsend, a soldier in the War of 1812 and a pioneer settler of Carbondale during the infancy of the village of Carbondale. He kept an inn in an old log house. (For more on E. M. Townsend, see "log tavern" in this volume.) E. M. Townsend (died in Baltimore, MD, aged 56 years) was at one time sergeant-at-arms of the United States Senate.

On the question of the organization of the firm Dickson & Company: Following his retirement from the D&H as master mechanic, after 18 years of service in that position, James Dickson, "in association with his sons, Thomas, John and George L., organized the firm, Dickson & Company, Joseph Benjamin also having an interest. After two successful years the firm incorporated, in 1861, as the Dickson Manufacturing Company, with works in Wilkes-Barre and

Scranton, doing locomotive and general machine work in two plants. The burden fell upon the sons, the father having practically retired, but giving to the younger men the benefit of his experienced judgment." (*Hitchcock*, pp. 22-23)

Additional data on the formation and history of the Dickson Manufacturing Company is presented in the biographical portrait of George L. Dickson in Hitchcock's *History of Scranton*: "George Linen Dickson was about two years of age when his parents came to Canada and two years later was brought with them to the United States. He was educated in the public schools in Carbondale. He was intended by his pious parents for a minister of the Presbyterian church, but his brother, Thomas, having established in a mercantile business in Carbondale in 1845, prevailed upon his parents to allow George L. to enter his employ as clerk. He had as a partner Joseph Benjamin, who also was anxious to have the boy with them, so the parents consented, and on February 6, 1845, he began work, intending his stay to be brief, but he continued with his brother until he attained his majority and never returned to school. In 1851 he bought Mr. Benjamin's interest, the firm becoming G. L. Dickson & Company, his brothers, Thomas and John, being the other partners. The firm also owned Benjamin's old foundry, Thomas having charge of that, and George L. operating the store. In 1856 they sold the store, and as the Dickson Company, George L. operated the foundry at Carbondale, Thomas building and managing the Scranton plant. The company had incorporated as the Dickson Manufacturing Company, and on January 16, 1860, George L. Dickson came to Scranton as manager of the local plant, then beginning his twenty-two years' service with the company in Scranton. In 1867 he became president of the company, continuing until 1882, when he sold his interests and retired from the company. He then established a private business in railroad supplies and equipment, representing several of the best known manufactures of machinery and supplies in New York and Scranton, becoming widely known in the trade in the United States and Canada." (*Hitchcock*, p. 23)

Colonel Henry Martyn Boies

1882-1886: Colonel Henry Martyn Boies served as president of the Dickson Manufacturing Company. About Colonel Boies, we read the following in *Portrait and Biographical Record of Lackawanna County, Pennsylvania*, pp. 545-46: "The subject of this sketch was born in Lee, Mass., in 1837, gained the foundation of his education in the public schools and then entered Yale College, from which he graduated in 1859. . . He came to Scranton in 1865, as resident member of the firm of Laflin, Boies & Turck, powder manufacturers, and four years later became president of the Moosic Powder Company. Noticing that there were many fatal accidents in mines on account of the careless handling of cartridges by lamplight and desiring to remedy this evil, in 1873, he invented a cartridge package for mining powder, that was almost universally adopted. / When the 'Molly Maguires' had effected a state of lawlessness throughout the mining regions, Mr. Boies organized the Scranton City Guard, was chosen its commander,

and became major when it was mustered into the State National Guard. In 1878, when the independent companies were consolidated with the battalion to form the Thirteenth Regiment, he was chosen colonel. / In 1861 Colonel Boies married Emma G., daughter of Rev. Thomas Brainerd, D. D., of Philadelphia. . . . After the death of his first wife, Colonel Boies, in 1870, married Elizabeth, daughter of Thomas Dickson, of Scranton. . . / In the spring of 1882, Colonel Boies became president of the Dickson Manufacturing Company and during the four years he held this position, his judicious management was manifest in the increased business of the company, its enlarged works, the introduction of the hydraulic system of flanging and riveting, and its capacity of production enhanced. He placed its finances upon a basis so solid that even during the great depression of 1884-85 the six hundred employes were retained and the business carried on uninterruptedly. While with this company he invented a steel-tired car wheel, now manufactured by the Boies Steel Wheel Company, of which he is president."

William E. Clark

1895: William E. Clark became foreman of the boiler shops of the Dickson Manufacturing Company. This we know from the biographical portrait of the man in *PABRLCP*, p. 642-43: "WILLIAM E. CLARK, foreman of the boiler shops of the Dickson Manufacturing Company at Scranton, succeeded to the position which had been previously filled by his father, and from which the latter resigned in December, 1895. He is one of the oldest men in the employ of the company, in point of years of service, having nearly completed the quarter of a century with them. / . . . William E. Clark was born in Cherry Street, New York City, June 23, 1852, and spent his childhood in Brooklyn. . . In February, 1872, he came to this city [Scranton] and at once found a position with the Dickson Company. . . In 1882 he was promoted to be assistant foreman and so efficiently did he discharge his duties that it was a matter of course when he was called to step into the higher place made vacant by his father's resignation. Under him there are now about one hundred men and the business is constantly increasing." William E. Clark married Annie M. Clark in 1875. In 1847, her father, Thomas Clark, became an employee of the Pennsylvania Coal Company in Dunmore and served as assistant paymaster until his enlistment in Company G., One Hundred and Forty-first Pennsylvania Infantry in the Civil War. Following his discharge from the war, he [Thomas Clark] served as weighmaster for the Mount Pleasant Coal Company.

5924

3. Wire Ropes and Not Hemp Ropes on the Planes

Wire rope (1 ¼ inch, Roebling) substituted for manila/hemp rope on all the planes on the D. & H. Gravity Railroad.

On the question of wire rope, see:

Sayenga, Donald, *The Birth and Evolution of the American Wire Rope Industry*. 1980

Sayenga, Donald, *Ellet and Roebling*. 1983

Research Note: There are major collections of the Roebling papers in the Roebling Collections at Rutgers University and at Rensselaer Polytechnic Institute.

Source of the wire rope that the D&H used on the planes on the Gravity Railroad?

We do know that a large quantity of it came from the Hazard wire work in Wilkes-Barre. We know this from the article given below:

"ITS LOSS WILL NOT BE FELT. / The Abandonment on the Gravity is Now a Subject of Little Concern to the Community. / That the community has entirely recovered from any sense of loss which might have been felt over the announcement of the abandonment of the Gravity railroad is apparent to all. It is now seen and acknowledged generally that the doing away with the road will have no bad effect on the town and there is a growing expression that it may even help the city. / . . . The Hazard wire work in Wilkes Barre will be considerably affected after January 1 by the shut down as they furnished a large quantity of the ropes for the gravity planes." [emphasis added] (*Carbondale Leader*, November 4, 1898, p. 5)

It seems very probable that some wire rope in the D&H system must have come to the D&H via Roebling's operations.

Roebling's wire ropes: first made out of iron, later made of low carbon steel:

These wire ropes, which were developed and manufactured by John Augustus Roebling, were 1 ¼ inches in diameter. Philip Ruth adds (p. 46): "The first cables [Roebling wire ropes] were made out of iron and had a life expectancy of about seven months. As technology improved, these 'wire ropes' were replaced with low carbon steel cables, which were three times stronger and longer lasting." [Galvanized high tinsel steel wire was specified by the Roeblings for the Brooklyn Bridge.]

There are many different styles of wire rope. With the help of his neighbors in Saxonburg, Roebling made wire ropes (from malleable wrought iron wire) for six years. Roebling's wire rope: helically twisted strands as in hemp ropes. Unhappy with the quality of the wire he could purchase from others, he decided to make his own, and built a wire rope factory in Trenton, next to the rolling mill of Peter Cooper.

Roebling was born June 12, 1806 in Muhlhausen, Thuringen, the Kingdom of Prussia. On May 22, 1831, Roebling left Prussia with his brother Carl and came to America, where they purchased 1,582 acres of land on October 28, 1831, in Butler County, PA, with the intent to establish a German settlement, called Saxonburg. In 1836, John Roebling married Johanna Herting, and they had nine children. In 1841, Roebling, with the help of his neighbors in Saxonburg, began producing wire rope.

The 395-mile long Pennsylvania Main Line Canal (the state-owned Main Line of Public Works) between Philadelphia and Pittsburgh was constructed in the period 1826-1834. It had four components: the Philadelphia and Columbia Railroad, two sections of the Pennsylvania Canal, and the Allegheny Portage Railroad.

Between Holidaysburg and Johnstown, the 37-mile long Allegheny Portage Railroad crossed the mountains. That railroad was actually eleven short railroads that were connected by ten self-acting inclined planes which worked on the counter balance principle (one vehicle was raised while another was lowered by a 2" hemp rope). This railroad opened in March 1834.

In 1842, Roebling was given permission to install his stranded wire rope (iron wire suspension bridge cable) on Plane No. 3 on the Allegheny Portage Railroad. It proved to be so superior to the hemp ropes then in use that it was soon installed on all the planes on the APR. Roebling, with the help of his neighbors, made all the wire rope by hand.

Lowenthal, p. 152, says “. . . John Roebling, a German immigrant who manufactured wire rope in western Pennsylvania, was already [in 1846] familiar to the company. Beginning in 1844 the D&H had purchased his wire rope to replace the cumbersome fiber ropes on the planes of the gravity railway.”

Roebling's wire rope on the planes in 1844? Where is Lowenthal getting this from? 1858 is the year that is generally given as the year that wire ropes replaced the hemp ropes.

Roebling was very aware of the poor quality of malleable wrought iron wire available in the market generally. He decided to establish his own wire rope factory. He did so in Trenton, NJ in 1848. His wire rope factory was soon the largest in the world. His son Ferdinand expanded his wire rope business. His son Charles Roebling designed and invented a huge 80 ton wire rope machine and founded the town of Roebling, New Jersey where the John A. Roebling's Sons company steel mill was built.

When Roebling died on July 22, 1869, his four sons inherited the factory (John A. Roebling's Sons Corp.), which remained in business until 1973. There is today a bronze statue to John August Roebling in Trenton, NJ. The statue was unveiled in 1908.

In 1848 Roebling undertook the construction of four suspension aqueducts on the Delaware and Hudson Canal. In the period 1848-1851, Roebling constructed suspension aqueducts across the Lackawaxen and Delaware rivers, and built replacements* for smaller aqueducts across the Neversink and Rondout Creeks. The Delaware and the Lackawaxen aqueducts were first used on April 26, 1849, the beginning of the boating season for that year.

*When the Canal opened there was an aqueduct over the Neversink river 224 feet in length, upon stone piers and abutments, and an aqueduct over the Rondout entirely of stone upon two arches, one of 60 and the other of 50 feet chord.

John Augustus Roebling died on July 22, 1869, in Brooklyn Heights, NY. His earthly remains are interred in the Riverview Cemetery in Trenton, NJ.

5925

Horses no longer used on the levels

Horses were used on the levels in the 1829 and the 1845 configuration of the Gravity Railroad. With the construction of the 1859 configuration of the road, horses were no longer used on the levels.

In "Our Own Gravity Road," *The Delaware and Hudson Company Bulletin*, July 15, 1925, pp. 6, 9-11, we read:

"The final location of the loaded track from Carbondale to Farview was made in 1856-57 when an entire new line was built and eight planes used in place of the former five, thus shortening the intervening levels. To entirely dispense with horses the light track between the planes was built on a descending grade, [emphasis added] two short 'return' planes being built near the head of Numbers Seven and Eight, to bring the empty cars to the top of these planes. Operations of the planes continued the same . . ." ("Our Own Gravity Road," *The Delaware and Hudson Company Bulletin*, July 15, 1925, pp. 6, 9-11)

Horses were still used after 1856-57 at the foot of Plane No. 1 in Carbondale and at the foot of Plane No. 13 in Honesdale to move cars around at the foot of those planes. Horses were also used in the Gravity Shops area in Carbondale, as can be seen in the photograph given below, which was taken in the 1870's (?)



5926

Carbondale and the D&H in General at the time of the 1859 Configuration

In 1850, there were 4,954 inhabitants in the township (the City of Carbondale had not yet been carved out of Carbondale Township). In 1880, there were 7,719 within the city limits.

The great flood in Carbondale on July, 19, 1850:

"THE GREAT FLOOD. / The great flood, which occurred on the night of July 19th, 1850, was caused by the breaking of a dam on Rackett [sic] brook, a mile above the village. The water swept

everything before it, and damaged property to the extent of \$100,000. John Aitken, jr., John Hewitson, James Dickson, Lewis Pughe, The Union Foundry and the Delaware and Hudson Canal Company were the principal sufferers. Two sons of William Davis were drowned. The flooding of the mines caused a serious delay in mining, as the water was not pumped out sufficiently to enable work to be resumed before November 15th, 1850." (1880, p. 446)

Henry Watts began working for the D&H in 1850:

"HENRY WATTS, weigh-master and coal agent for the D. and H. Canal Company, formerly a blacksmith, was born in Ireland (where he married Isabella Miller), January 24th, 1824. He came to Carbondale in 1850, and at once entered the service of the D. and H. Canal Company." (1880, p. 452F)

The devastating fire in Carbondale in September 1850:

September 28, 1850: fire broke out in the Carbondale House, kept by G. W. Thomas, and burned nearly the entire business part of the town. The space burned over extended from the parade ground to the turnpike, on Main Street, and west side of Church street, including twelve stores, five dwellings, three hotels, one saddle and harness shop, the post office, several offices and both newspaper establishments.

Four other devastating fires in Carbondale in the 1850s and 1860s:

September 16, 1855: fire broke out in W. W. Bronson's railway hotel, destroying the hotel and several other buildings.

April 10, 1859: fire broke out in the office of Alfred Dart, which burned the Harrison House, together with several stores and offices on the west side of Main Street, between Salem Avenue and the parade ground (present-day Memorial Park).

September 15, 1866: fire destroyed buildings on the east side of Main Street, from Dundaff Street down, to the value of \$50,000.

March 29, 1867: the entire business portion of the city below City Hall was burned, the flames destroying 40 stores and shops and leaving sixty families homeless. The entire loss was \$200,000.

Incorporation of the City of Carbondale in 1851:

On March 15, 1851, John Cessna, Speaker of the House of Representatives of Pennsylvania and Benj. Matthias, Speaker of the Senate of Pennsylvania, signed the 40-section *An Act to Incorporate the City of Carbondale*. This act was approved, the same day, by Wm. F. Johnston. Carbondale is, therefore, the fourth oldest incorporated city in the Commonwealth of Pennsylvania (after Philadelphia, Lancaster, and York).

It is interesting to note that the Delaware and Hudson Canal Company is named specifically in description of the boundary of the city at the time of its incorporation. Here is the complete text of Section 1 of "An Act to Incorporate the City of Carbondale."

"AN ACT TO INCORPORATE THE CITY OF CARBONDALE. / Section 1. *Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania in General Assembly met, and it is hereby enacted by the authority of the same:* That the inhabitants of the town of Carbondale, in the county of Luzerne, embraced and residing within the following lines of survey to wit: beginning at a corner in the southerly line of the township of Fell at the point where the Milford and Owego Turnpike Road crosses said Fell township line, thence south thirty-two degrees west six hundred and sixty-two perches to a corner in the northerly line of Thomas Meredith's cottage farm, thence by a line due east four hundred eighty-eight perches to a corner on the empty or return track of the Delaware and Hudson Canal Company's Blakely Railroad, [emphasis added] thence north thirty-two degrees east six hundred sixty-two perches to a corner in the southerly line of the township of Fell; thence along the line of said Fell township due west four hundred eighty-eight perches to the place of beginning, are hereby constituted a corporation and body politic, by the name and style of 'The Mayor, Aldermen, and citizens of Carbondale,' and by the same name shall have perpetual succession, and they and their successors by such name shall at all times forever by able and capable in law to have, purchase, receive, possess and enjoy lands, tenements and hereditaments, liberties, franchises and jurisdictions, goods, chattels, and effects, to them and their successors forever, or for any other or less estate; and the same lands, tenements, hereditaments, goods, chattels and effects, by such name to grant, bargain, sell, alien, convey, mortgage, pledge, and encumber, and dispose of at their will and pleasure; and by the said name shall be able and capable, in law, to sue or be sued, plead and be impleaded, answer and be answered unto, defend and be defended in all courts of record and elsewhere, in all manner of suits, actions, complaints, pleas, causes, matters and things that to the said city, as a body politic and corporate in law, and in fact shall and may appertain, and for that purpose shall have and use one common seal, and the same, from time to time, may change, deface, and make anew."

The reference to "the empty or return track of the Delaware and Hudson Canal Company's Blakely railroad" in the above description is to light track to Archbald that was installed at the time of the 1847 extension to Archbald.

John Wurts resigns as president of the D&H, 1856:

Speaking of this period in the history of the D. & H. and about John Wurts' term of service as the Company's president, Hollister says: "Up until 1858 the Delaware and Hudson Canal Company had had but three Presidents, Philip Hone, John Bolton, and John Wurts. The first gentleman served from 1825 until 1826, John Bolton from 1826 to 1832; when the Hon. John Wurts assumed the responsibilities of the office. / On the 15th of March 1856, Mr. John Wurts, after twenty-seven years of devoted service, resigned his office as President of the Company. His resignation was accepted by the Board with the greatest reluctance, and only because they were

convinced that the state of his health imperatively demanded an entire withdrawal from the anxieties and toils incident to the office. The following resolutions, expressive of the sense of the Board on the occasion, were unanimously adopted and ordered to be published in this report: / .WHEREAS, Mr. John Wurts has signified to this Board his wish to retire on account of the feeble state of his health, from the position he has so long held as President of this Company, be it therefore / RESOLVED, That this Board have learned with feelings of sincere regret the determination of Mr. Wurts, to retire from the Presidency of this Company and though the reasons which he gives for coming to this decision are such as forbid us, in justice to him, from seeking to change his purpose, they cannot in accepting his resignation forbear to put on record their profound appreciation of the singular ability and self-sacrificing zeal with which he has discharged the duties of President for a period of twenty-seven years. And in thus expressing their sense of the value and faithfulness of his services, they would at the same time most cordially congratulate him on the fact that having been placed at the head of the Company at a time when its affairs were in extreme embarrassment and its credit almost gone, he is now able to withdraw, leaving it in a state of great prosperity, and possessing in an extraordinary degree the public confidence, a result, as they think, in a very large measure, owing to the wisdom and devotion with which he has labored in its service. / RESOLVED, That it is the earnest hope of this Board, that being released from the cares and labors of office, Mr. Wurts may speedily recover his former health and vigor and be long spared to give the Company the benefit of his advice and counsel. (Report of the Board of Managers March 30, 1858) / The Administration of President Wurts embraced a period of financial embarrassment and final success of the Company whose affairs through the long years of almost despair, he managed with singular fidelity and tact. He saw the stock in its downward movement, depressed to 40 per cent and lived to see the Company freed from debt and begin to pay dividends which for thirty-five consecutive years never failed to be fair and satisfactory to Stockholders. / [Hollister then lists the officers and managers of the D. & H for 1858]. During this year the Company's railroad was extended from Archbald, the former terminus, seven miles down the valley to richer coal lands belonging to the Company at a cost of \$300,000 for stationary engines, bridges, roadway with the necessary equipment."

Gravity Railroad to reopen for the season in April, 1857:

"The cars on the Delaware and Hudson Railroad will commence their regular trips the first of April, which is to our community the most cheering news no doubt, we could possibly apprise them of. Owing to the inclemency of the past winter, the operations here have been suspended for a much longer period than usual. This unavoidable circumstance has produced among the laboring part of our people, if not absolute want, in some instances at least, very real inconvenience and inability to purchase their usual and necessary supplies of the requirements of life. All the repairs will be completed before the first proximo, and the greatest exertions, we understand will be made by the Company to get to market the present season all the Coal they can possibly transport over the road. No better opportunity offers to Miners and Laborers for constant employment and remunerative wages than is here presented. In addition to the

heretofore vast outlay of the Del. & Hud. Company in the promotion of enterprise, they are now erecting at No. 2 Shaft a screen to prepare the finer coals: at Archbald the mining operations are to be increased two-fold, and a determination is to send from this end of the Lackawanna Valley the present season 600,000 tons. Next year, the new Road now constructing from this point over the Moosic Mountain will be completed, and its increased facilities will enable this Company to send from here a million of tuns annually. [emphasis added] This, from what we have already seen of the enterprise enlisted in developing our hidden wealth, will be accomplished. Why then despond as to our future? We are progressing slowly but surely—the skies are bright—our prosperity is of the substantial not the effervescent sort, and therefore should we be less prone to dissatisfaction. We say, then, there is no better field for the laborer than our mining operations afford.” (*Carbondale Transcript, and Lackawanna Journal*, March 19, 1857, p. 2)

Working six days a week, 1857:

"The Del. & Hud. Co. are mining and running coal six days a week, and are doing their usual amount of business. They ceased work on Saturday's only twice, and have recommenced running coal as usual." (*The Advance*, November 28, 1857, p. 2)

1858: D&H Officers and Directors, 1858:

March 15, 1858: John Wurts, after 27 years as president, resigned; he remained a Director until 1861; died at Rome on April 23, 1861.[Three presidents, to date: Philip Hone, 1825-26; John Bolton, 1826-32; John Wurts, 1832-58] George Talbot Olyphant was elected to succeed Wurts.

D&H Officers, 1858:

President: George Talbot Olyphant

Vice President: Robert Soutter (previously elected in 1856)

Treasurer: Isaac N. Seymour

Secretary: James C. Hartt

Managers: John Wurts, Silas Holmes, William S. Herriman, Charles N. Talbot, Lora Nash, Edward J. Woolsey, George T. Olyphant, Robert Ray, Daniel Parish, Samuel B. Shieffelin, Abiel A. Low, Robert L. Kennedy, John David Wolfe.

John Gilligan became a resident of Carbondale in 1858:

“OBITUARY. / Mr. John Gilligan who has resided in Carbondale since 1858 died at his home on Washington-st., Friday evening, 27th inst. of typhoid pneumonia, aged 68 years. Deceased was a hard working and industrious man. He worked for many years under Thomas B. Thomas, deceased, boss mason for the Del. and H. C. Co. and subsequently for Henry Gramer, Mr. Thomas’ successor. Mr. Gilligan was considered an agreeable and proficient workman. The traces of his chisel and mash hammer are well distributed along the entire line of the company’s road. His neighbors esteemed him for his great and unpretentious habits and will miss his

friendly face. His two children Thomas and Margaret have lost their pilot, he that guided their footsteps from childhood with a never ceasing parental solicitude. He has gone never to return but his memory shall live in the hearts of those that appreciate a good man and death unto life everlasting.” (Carbondale Leader, March 31, 1885, p. 1)

John Wurts resigns as D&H president, 1858:

March 15, 1858: John Wurts, after 27 years as president, resigned; he remained a Director until 1861; died at Rome on April 23, 1861. [Three presidents, to date: Philip Hone, 1825-26; John Bolton, 1826-32; John Wurts, 1832-58] George Talbot Olyphant was elected to succeed Wurts.

New configuration of the Gravity Railroad will make it possible to ship more coal to market:

“BUSINESS RESUMED. / The great event of the week, in our town, has been the commencement of the season’s business by the Company, in the mining and sending of Coal. The depressed state of the Coal Market, and the many improvements they have been making along the line to increase the capacity of the Road, [emphasis added] has delayed starting business, though not to as late a day as many expected. Most of our readers are aware that nearly the whole track has been relaid with T rail, in the best manner, during the past year. The route on this side of the mountain is a new one, the number of planes and Engines, and the power of the latter, much increased. Coal has already passed over, and the new arrangement thus crowned with success. With planes shortened and increased in number, admitting of quick operations, with new Engines of enlarged power, and a track furnished with substantial T rail, the capacity of the road is so much increased, that it would seem that the Company will be able to send off almost any quantity of Coal the state of the market warrants. / The cars have started! Indeed we should know that from the quickened step and brightened countenances of those we meet upon the side walk, had we not otherwise heard the gratifying fact.” (Carbondale Advance, May 8, 1858, p. 2)

Discontent among the workers, 1858:

“There was a large turn-out of Miners and others engaged in the collieries in this place, at the City Hall, on Saturday last, and much enthusiasm manifested. Addresses were delivered by several of the miners, and by two of our citizens—Messrs. Byrne and Pratt—which were received enthusiastically by the audience. A series of resolutions were adopted, which will be found in another column. / On Monday last, a procession was formed and they marched to Archbald to ascertain the state of feeling among the miners there, and found them ready to strike. We believe that none of the Mines of the Company are now being worked. It is probable, however, that negotiations will be made with the employees and operations commenced ere long. There is one thing commendable about this transaction, and that is that perfect order has been maintained among the miners in general, not a shadow of violence has been manifested, nor any spirit of unfairness.” (Carbondale Advance, June 19, 1858, p. 2)

“Resolutions of the Miners and others, employed in the Coal Mines of Carbondale. / At a meeting of working men, held in the City Hall on the evening of Jun 12th, 1858, the following Preamble and Resolutions were unanimously agreed to:-- / *Whereas*, we cannot possibly exist

and support our families at the low prices now paid for labor; many of us being unable to earn sufficient money to pay for blasting powder, paper, cotton, oil. &c.; we have therefore / *Resolved*, to 'strike' for higher wages, and not to work again until we all get the same: and we beg our fellow workmen throughout the Anthracite regions of the Del. & Hud. Canal Co. to strike with us, and that at once! as we are in a deplorable condition. / *Resolved*, that a general strike, and nothing less than a general strike by all persons employed in and about the anthracite collieries of the Del. & Hud. Canal Co. will give us remunerating wages for our hard labor. / *Resolved*, that we keep within the bounds of the fair laws of our country—not to get drunk, halloo, make threats, give insults, stop those who wish to work from doing so, annoy persons, or other things unlawful or imposing, so that our employers, or any evil-disposed persons may not find any blame in any of our actions. / *Resolved*, that no Miner swing a pick or put in a blast for the Delaware and Hudson Canal Co., until they pay a *reasonable* compensation for the labor done. / *Resolved*, that the proceedings of this meeting be published in *The Advance*. / *Note*—The price offered is 32 ½ cts. and Cutting; price demanded 37 ½ cts., the Cutting and Bottom Mining.” (*Carbondale Advance*, June 19, 1858, p. 2)

The miners on strike, 1858:

“The strike still continues on the part of our Miners. We see nothing encouraging in the prospect at present—no indications of an early satisfactory adjustment. The Company are improving and regulating their new works along the line, so as to avoid the hindrances and difficulties that produced the embarrassing delays at the first start this season.” (*Carbondale Advance*, June 26, 1858, p. 3)

Roof falls in ten chambers, 1858:

“*Falling of Mine Roofs*—Since the turn out of the Miners here, we are told that the roof has fallen in ten chambers—two in the New Slope Mines, and eight in the Dip [Deep?] Mines.—Many tools and some powder and oil are thus shut up for the present, and it is truly fortunate the workmen were out at the time.” (*Carbondale Advance*, June 26, 1858, p. 3)

Three week suspension of work at an end, 1858:

“HAPPILY TERMINATED—the suspension of work at our Mines. Mining will be commenced vigorously on Monday next. A meeting of Mr. Wurts with the Miners on Wednesday last resulted to the satisfaction of both parties, and a better feeling now prevails than has existed for years. It is expected that the Road will be fully ready on Monday, and operations will be then commenced with that hearty good will which conduces so largely to success.” (*Carbondale Advance*, July 10, 1858, p. 3)

Good behavior of the miners during the strike, 1858:

“*For the Advance*. / “**Blessed are the Peace-Makers.**” / “**A Better Time Coming, Boys!**” / We are gratified to learn that the misunderstanding between the mining portion of our community and the Delaware & Hudson Canal Company, which produced a total suspension of the works, but which was marked with the utmost decorum and order on the part of the miners, was happily arranged on Wednesday last, when Chas. P. Wurts, Esq., met the whole body of men on Welch

Hill, where an explanation followed which was perfectly satisfactory to all concerned. / During this strike or misunderstanding, it has been generally remarked that at no period since Carbondale was settled have our mining population been more orderly than they have been the past three weeks. On the fifth, the Firemen paraded, and the Miners and Laborers joined the procession with music and banners, bringing over a thousand persons out in the procession and as spectators—yet not the slightest breach of peace was committed nor a drunken man seen, and the usual custom of having extra policemen on the day dispensed with entirely, so confident were our authorities that their services would not be needed. / During the past three weeks, our people have been amused with the stories published at Wilkes-Barre and at Kingston, N. Y. Our peaceful miners have been represented as a turbulent set of incendiaries—all from the fact that the Company's shop was burned, while those best acquainted with the facts attribute it to spontaneous combustion. The burning of Poor & Mills' barn is accounted for without charging the miners with it, as those gentlemen at the time and ever since have exonerated that class from any charge of the kind—fire having been set by those better acquainted with the premises than any one about the mines could have been. We think our population as orderly, if not more so, than the same number of men are at either point where these attacks have been made on us. If doubted, we would like to compare Jail books with either, as our Jail has but one *boarder* and his offence has nothing to do with the troubles connected with the cause which has given our timid neighbors so much concern, while we have laughed in our sleeve at their being humbugged so easily. JIM." (*Carbondale Advance*, July 10, 1858, p. 3)

Suspension over, work to resume, 1858:

"HAPPILY TERMINATED---the suspension of work at our Mines. Mining will be commenced vigorously on Monday next. A meeting of Mr. Wurts with the Miners on Wednesday last resulted to the satisfaction of both parties, and a better feeling now prevails than has existed for years. It is expected that the Road will be fully ready on Monday, and operations will be then commenced with that hearty good will which conduces so largely to success." (*Carbondale Advance*, July 10, 1858, p. 3)

Miss Queen dies as a result of an injury on the cars, 1858:

"SAD ACCIDENT.—We learn that a young lady from Hawley, on her way to Scranton to attend the Teachers' Institute, now in session there, was so injured by the cars as to render amputation of a leg necessary. We have not learned the name or particulars. / Since the above was written, we learn from the *Scranton Republican*, that the young lady has since died. Her name was Miss Queen, resident at Hawley." (*Carbondale Advance*, August 14, 1858, p. 3)

More workers than needed, 1858:

"SCARCITY OF WORK.--The extensive operations in our Valley during the past two or three years, have attracted here an immense number of miners, mechanics and laborers, until the supply exceeds the demand. Especially in the present depressed state of the coal trade, there, and will for some time continue to be, a scarcity of work. Some portion of the men heretofore employed in this business, must seek other employment or be idle." (*The Advance*, September 11, 1858, p. 3)

Passenger service now operating between Carbondale and Providence, 1859:

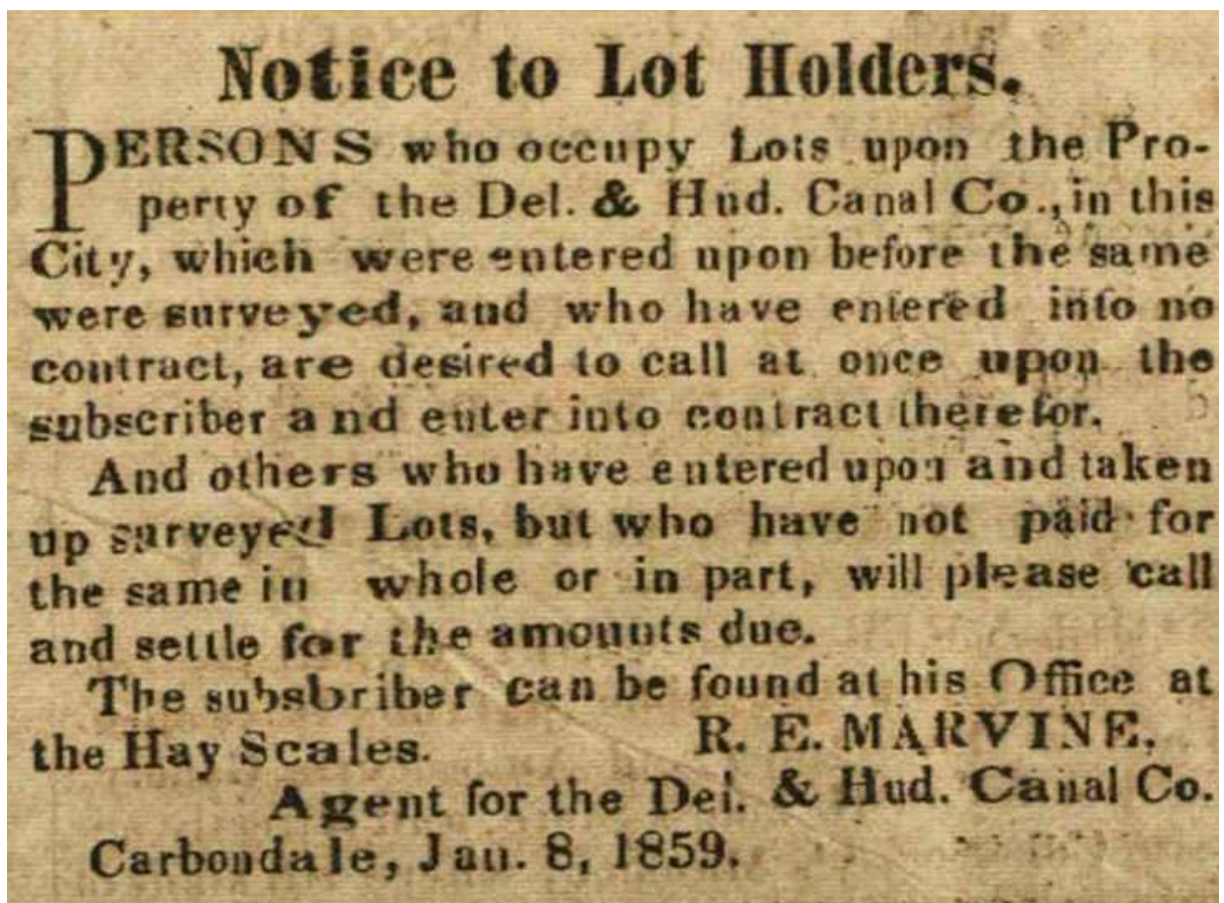
D&H attached a passenger car to a freight car between Carbondale and Providence once a day; three cars per day (none on Sunday) in 1864; they transported 5,000 passengers per month.

Thomas Dickson becomes General Coal Superintendent of the D&H, 1859:

“It is stated upon authority that the Del. & Hud. Canal Co. have secured the services of THOMAS DICKSON ESQ, formerly of this place, but more recently of Scranton, as General Coal Superintendent. Mr. Dickson has business ability of the first order, and we doubt not he will do himself credit, and the Company and community good service in the new position. / The eminent success of the Company’s operations the past season is the subject of frequent remark—the excellence of their road, their ample supplies of superior coal—and the wisdom that guides the selection of their Agents, promise continued prosperity, and ability to compete successfully with their rivals in the Coal Markets of the county.” (*Carbondale Advance*, December 17, 1859, p. 2)

Lot holders asked to enter into a contract with the D&H, 1859:

Weekly Advance, January 15, 1859, p. 3



March 12, 1859: D&H authorized by the Pennsylvania legislature to extend the railroad and hold 3,000 additional acres of land.

Here is the text of that law:

44

Pennsylvania

LAWS OF 1859, No. 123.

A SUPPLEMENT TO AN ACT TO IMPROVE THE NAVIGATION OF THE RIVER LACKAWAXEN, passed the Thirteenth Day of March, One Thousand Eight Hundred and Twenty-three.

Authority to
extend rail-
road beyond
present
terminus.

SEC. 1. Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania, in General Assembly met, and it is hereby enacted by the authority of the same, That the President, Managers and Company of the Delaware and Hudson Canal Company be, and they are hereby authorized to extend their railroads, with the necessary branches and fixtures, from the present terminus in the township of Blakely, Luzerne County, to any part of the adjoining township of Providence, in said County of Luzerne, and to any lands now owned or that may be hereafter purchased by them, under the provisions of this act, the damages for taking lands in the construction of said roads and branches to be assessed and secured in the manner pointed out in the provisions of an act passed the seventh day of April, one thousand eight hundred and fifty-eight, entitled "A supplement to an act to improve the navigation of the River Lackawaxen, passed the thirteenth day of March, one thousand eight hundred and twenty-three." And they are hereby authorized to purchase and hold an additional quantity of three thousand acres of land in the townships of Fell, Carbondale, Blakely and Providence, in the County of Luzerne, for the purpose of carrying on their operations.

Authority to
purchase and
hold an addi-
tional quantity
of land.

Additional
power and
authority to
construct
dams.

SEC. 2. That in addition to the power now given to said company by the said act of March thirteenth, one thousand eight hundred and twenty-three, and its supplements, to erect dams on the Lackawaxen and its tributaries, for the purpose of the canal, the said company are hereby authorized to construct dams on the tributaries of the Lackawaxen and the Lackawanna and its tributaries, for the purpose of creating water power to propel the cars over and upon the railroads now constructed or hereafter to be constructed by them: *Provided*, That the navigation of said streams shall not be obstructed, and that the damages thereby occasioned, by taking and flowing land, shall be assessed, and secured in the manner pointed out in the said act of March thirteenth, one thousand eight hundred and twenty-three, and its several supplements.

W. C. A. LAWRENCE,
Speaker of the House of Representatives.

JNO. CRESSWELL, JR.,
Speaker of the Senate.

APPROVED—the twelfth day of March, A. D. one thousand eight hundred and fifty-nine.

WM. F. PACKER.

Miners go back to work, 1859:

1859: **“Business Resumed.** / All difficulty in relation to work in the Mines here has been happily adjusted during the week. It has been done without any sacrifice, so far as we can see, of dignity or rights on either side. / At a meeting of the Miners held at ‘Union Hill,’ on Wednesday afternoon, a Committee was appointed to wait on C. P. Wurts, Esq., Chief Engineer, and express to him their unwillingness to work for Contractors, from the evils to which the system elsewhere led, but their entire willingness to work for the Company as heretofore. This was connected with assurances of their entire discountenance and disapproval of the late acts of incendiarism of which some lawless and desperate persons have been guilty. The overture for work was accepted in the same spirit and on the terms as proffered, and the assurances made of kindly feeling seem to be genuine on all sides. / The Miners deserve as a body the credit due to all good citizens for their scrupulous regard to law and good order. Our streets have been quiet and peaceful, and there has been throughout an abstinence from those disturbances which rumor has in some neighboring places reported as existing. / Now that the skies are again bright, and the prospect good for remunerative business, our merchants are *en route* for New-York, and lively times ahead seem to be in store for us.” (*Carbondale Advance*, April 30, 1859, p. 2)

Three thousand tons of coal shipped over Gravity in one day, 1859:

“Coal Business. / The Shipments of Coal from this point, including that received from below [i.e., down the valley] exceeded that of any former period. Two hundred and ten trips were run upon the Railroad on Thursday—conveying but little less than 3,000 tons of Coal. / We understand that the Shipments from Honesdale per Canal on some days exceed 4,000 tons.” (*Carbondale Advance*, June 18, 1859, p. 3)

Maurice Wurts' extraordinary strawberries:

“Strawberries. / This most delicious of fruits is this season not only very plentiful, but remarkable in size. Our neighboring contemporaries speak of specimens of extraordinary size received by them measuring *four* inches in circumference, and others measuring *four and a half* inches. But Carbondale beats even that. / We received on Monday some specimens from the garden of MAURICE WURTS, Esq., of this city, exceeding *four and a half* inches in circumference, and on Thursday, by THOMAS LATHROPE, a fine basket from the garden of D. N. LATHROPE, Esq., at his Cottage residence, two miles below town, the largest of which measured *four and three-fourths inches*, exceeding all yet reported in Northern Pennsylvania. / We have also received from Mrs. L. BARBER a pail of very superior ones, raised in their garden. The size was very uniform and very large and flavor excellent—none quite equaling in size the largest before mentioned.” (*Carbondale Advance*, June 25, 1859, p. 3)

More tons of coal shipped per than ever before, 1859:

“Coal Shipments. / Everything about the Company’s Mines and Railroad here seems to work admirably this season. The shipments of Coal have reached a higher amount per week than during any previous season, and are still to be increased.” (*Carbondale Advance*, July 2, 1859, p. 3)

Another record day of coal shipments, 1859:

“3,000 TONS PER DAY.—Under the present excellent management upon our Railroad, the daily shipments of coal have reached this high figure. It is several hundred tons more than were shipped daily in any former season.” (*Carbondale Advance*, July 16, 1859, p. 3)

Henry Jones killed by a fall of slate in the mines, 1859:

“**MELANCHOLY ACCIDENT.**—A sad and fatal accident occurred in our mines on Wednesday, the 6th inst., mention of which was intended last week. Mr. Henry Jones, a miner, was crushed by a fall of slate from the roof of the mine in which he was working. He was immediately taken home, but survived only a few moments only. He leaves a wife and five small and dependent children in destitute circumstances.” (*Carbondale Advance*, July 23, 1859, p. 3)

1860: D&H Canal Company office on Main Street in Honesdale was built.

Thomas Dickson appointed superintendent of Coal Department, 1860:

January 1, 1860: coal and railroad departments separated and Thomas Dickson (age 36) appointed superintendent of the coal department.

"The usual annual repairs" to take place, 1860:

“The business of Mining and Transporting coal, which has been conducted so prosperously from our mines this season, still continues. Coal is not only still mined in large quantities here at home, but also at Archbald and Olyphant. That mined at Olyphant is dumped near the mines, that mined at Archbald is with that taken from our mines, shipped to Honesdale. It is thought mining will continue uninterruptedly until about the first of March, when a short time will be taken for the usual annual repairs. / This long continuance of business will take our community through the winter comfortably.” (*Carbondale Advance*, January 21, 1860, p. 2)

A very high level of sophistication was visible in community life, as witnessed by the fact that the celebrated Horace Greeley came to town in 1860 to deliver a lecture titled "Great Men."

Horace Greeley comes to Carbondale, 1860:

A very high level of sophistication was visible in community life, as witnessed by the fact that the celebrated Horace Greeley came to town in 1860 to deliver a lecture titled "Great Men."

“**HORACE GREELEY.** / Editor of the *New York Tribune*, is expected to Lecture at Richmond's Hall on Thursday evening, February 16th. Subject, 'GREAT MEN.' / This we conceive to be one of cases in which it is only necessary to state the time and place to call out the people.--Greeley is one of the most remarkable men of the day—either in our own or any other country. He is an intense and independent thinker and one that impresses himself largely upon this age.” (*Carbondale Advance*, February 11, 1860, p. 2)

Greeley's celebrity in America at the time was very high, not only because he was the editor of the *New York Tribune*, but also because of the key role he played in getting the nomination for Lincoln to the presidency. This is true in that Greeley was present at the meeting in 1859 in

Honesdale in the law office Samuel Dimmick (located in a small building on the Park Hotel property on 9th Street in Honesdale) in 1859 during which was planned the nomination of Lincoln for president of the United States. Present at the meeting were Horace Greeley, Simon Cameron, Andrew G. Curtin, and Samuel Dimmick.

Horace Greeley's lecture at Richmond Hall, 1860:

“The Lectures. / The Lecture of Horace Greeley, at Richmond’s Hall, on Thursday evening, drew a large audience—the largest of the season. Evidently the desire to see and hear the famous Editor of the *New York Tribune* was very general and very strong. They expected wisdom, not eloquence—and in neither respect were they disappointed. The Lecture merits universal approval, containing no sentiment or language objectionable to either Democrat or Republican, conservative or radical. ‘Great Men’ were analyzed, and their characteristics faithfully drawn out and portrayed. The Lecture would read admirably. It was elegantly written, terse, compact and matter-full. Eloquent, in the usual acceptance of the term, it was not. / The next Lecture, and the final one of the course, will be delivered by Prof. John W. Fowler, Principal of the Poughkeepsie Law School, on Thursday evening March 1st. Reputation assigns him a high place as an orator—higher than any other on our Lecture list. / The subject of his Lecture, ‘Versatility of American Oratory,’ is befitting one of his fine oratorical powers.” (*Carbondale Advance*, February 18, 1860, p. 2)

Less than ten days after Greeley's visit to Carbondale, Abraham Lincoln delivered (February 27, 1860) his memorable Cooper Union address in New York City. In that address, Abraham Lincoln set forth the issues on which the new Republican party would appeal to voters and his no-compromise position on slavery. This speech projected Lincoln into the lead for the Republican presidential nomination.

Horace Greeley was there. He advanced on Lincoln the moment his speech was finished, asking for the manuscript of his address. He got it and, with Lincoln himself checking the rush galleys later that night at the *Tribune* office, the complete text of the epoch-defining speech was run in Greeley's *New York Tribune* the following morning (ahead of all the other papers). Greeley, who advocated a self-sufficient, industrialized America, in a word, had helped to found the Republican party; he had helped shape the central issues of the Civil War. At the Republican convention, on the third ballot, Lincoln got the nomination. Great triumph for Greeley.

The D&H Valley Road from Carbondale to Scranton opens, 1860:

1860: The Delaware and Hudson Canal Company's steam locomotive line from Carbondale to Scranton (the Valley Road) was opened. This rail line is the subject of Volume VII in this series on the D&H.

Passenger service to Providence very popular with the public, 1860:

“The Passenger Cars. ‘Our Passenger Cars,’ or the Passenger Cars now run on the Del. & Hud. Canal Co.’s Railroad to Providence, within two and one-half miles of Scranton, have become an

established and highly popular institution. They far exceed the most sanguine anticipations. The trip to Providence is a pleasure. The cars are elegant and comfortable, well cushioned and well warmed, and they run by gravity on fair locomotive time. The mails reach us in about one and a half hours from Scranton, and passengers arrive in good spirits, full of praises for the cars. / Depots are about being built here, and every disposition is manifested to provide fully for the convenience of freight and travel.” (*Carbondale Advance*, February 18, 1860, p. 2).

William Atkinson came to Carbondale, 1860:

"WILLIAM ATKINSON was born in England, in 1825, and married Hannah Hurd. He came to Carbondale in 1860, and entered the service of the D. and H. C. Company in 1863. Since July 5th, 1864, he has been lumber inspector." (*1880*, p. 452A)

Work resumed at the mines on the railroad, 1860:

“BUSINESS RESUMED. / The season’s business has been commenced upon our railroad, and at our mines this week. The interval since the suspension of work has been so short, that it has not been felt upon the business of the community. / Some time will yet elapse before the New Coal Breakers at the Mines below us are completed. Everything now looks auspicious for a business prosperous and satisfactory to all parties.” (*Carbondale Advance*, April 28, 1860, 2)

Strike over, work resumes, 1860:

“The Strike. / We are happy to announce a termination of ‘the Strike,’ and a resumption of business on Thursday last at the mines here. We hope it will be a long time before it is again disturbed. / During the existence of ‘the strike,’ we refrained carefully from any interference in what was others’ business, not ours, believing the effect might be mischievous, and at least in the then excited state of feeling would be of no advantage. It is now passed, and we hear but one opinion expressive of its effects, all argue that they are deplorably evil. All parties have suffered loss. The men have lost a month’s wages; the Company the result of a month’s business; and the non-participants, our Merchants, Mechanics, and the community generally have suffered in the aggregate to the amount of at least of \$30,000. / If any argument were needed to convince sensible men of the folly and absurdity of such attempts on the part of employees to dictate terms, by strikes, to a powerful corporation, such as the Del. & Hud. Canal Company, such argument is abundantly furnished to those who have watched the course of events in our midst for the past few years. We venture to assert that even when a fancied concession has been obtained from the Company by any class of men in their employment while upon a ‘strike,’ (and we have yet to learn that any material concession has ever yet been made by them under such circumstances,) there has never been a single instance when the men engaged in such strike have gained an advantage sufficient to compensate them for their loss of time in their voluntarily abstaining from work. / In the present instance we learn that not a single point has been gained. On the contrary, while the rates of wages remain precisely as they were before the strike, besides the loss of a month’s wages, the long suspension of business at this point has made it necessary, as we understand, for the Company to curtail operations *permanently* to some extent upon the Canal, so that probably the same number of men as heretofore will not be required during the

remainder of the season for the mining and delivery of their coal at Carbondale. This will necessarily throw out of employment many who had otherwise secured for themselves and families a comfortable support for the season. / Whatever may have been the fancied result of strikes heretofore, the position now taken by the Company shows most unmistakeably what are their intentions for the time to come; and it is to be hoped that the folly of a few men will not again be permitted to overrule the better judgment of our mining and laboring population, and induce them to place themselves in the false position they have occupied for the past month. / We hold that ‘the laborer is worthy of his hire,’ and the higher the wages he receives the better we are pleased. But the desirable end, his own interest, is defeated by ‘strikes,’ we have shown, and the principle, also, is wrong. Contracts for labor must be voluntary, under our laws and free system of government, *on both sides*. In this case, as one in point, the Company on their side have a right to offer what wages they choose, and the employee on his a right to accept or reject it, to labor for it or not, as he chooses. If not, there is no contract, both are free—the laborer to seek other employment, and the Company to seek other laborers, and neither has the right, either natural, moral or legal, to interfere with the other in so doing. / But in a ‘strike’ this principle is overlooked, and the employee undertakes to make not only his side of the bargain, but the Company’s also, and to compel a compliance with his demands by preventing others taking his place. This is a wrong, and the effects are all injurious and evil to both parties. / We have estimated the loss to our town, and in which we have all shared, by the late strike, at \$30,000. Many of our neighbors place it much higher. Laborers and Boatmen on the other side of the mountain have lost at least an equal amount. It is all loss, on both sides, and no gain. Hence it is that we would do that we can to avoid a repetition of the evil.” (*Carbondale Advance*, July 21, 1860, p. 2) Strike began June 18, 1860 and lasted about 68 days (varying strike periods at various mines)

Thomas Dickson named General Superintendent of the D&H, 1860:

Thomas H. Dickson was named General Superintendent of the D&H in 1860; served in that capacity for 7 years; named VP in 1867; named President in the summer of 1869, served as President for 15 years.

Beautiful beginning of a new year:

“**New Year’s Day.** / We never witnessed a more splendid New Year’s day than the last. It was beautifully clear, and sufficiently mild for comfort, while the ground was covered with about three inches of snow, freshly fallen of unspotted whiteness. The people—the young people especially—the gallant and the fair—seemed to be as near perfect happiness as is attainable in this world. Teams, Sleighs, Robes and Bells, all that were to be had ‘for love or money’ were in requisition and still some were unsupplied. It was indeed a grand and joyous New Year’s Day. We wish our readers all, very many such.” (*Carbondale Advance*, January 5, 1861, p. 2)

Annual Repairs to Stationary Engines, 1861:

“No Passenger Cars Next Week. / One week is necessary annually for repairing the Stationary Engines of the Company’s Railroad. We understand by current, and we suppose reliable, report, that next week will be taken for this purpose. If so, the Passenger Cars will not make their trips,

but passengers be taken thro' by omnibuses to Scranton. / It is an opportune time. The sleighing is now fine thro' the entire valley, and the best of omnibus sleighs will be used upon both ends of the route—by Mr. Durfee at the upper end and by Mr. Kenner at the lower end of the road.” (*Carbondale Advance*, January 5, 1861, p. 2); “We were mistaken last week in announcing that the Passenger Cars would be withdrawn for *a week*, that time being necessary for annual repairs. The energy with which the work has been prosecuted under the direction of *Townsend Poore*, who has charge of the Valley Line, restored the Freight Trains on Thursday and the Passenger Cars on Friday. / The good sleighing together with the accommodating spirit of Messrs. *Durfee* made the interruption rather pleasant than otherwise. They are supplied with large new Omnibus Sleighs and as they were driven rapidly thro' our streets with their merry loads they added to the general busy scene—our town having been during the time crowded with teams from a distance loaded with produce, which being purchased by our merchants, the teams return loaded with Coal. This state of things is a pleasant reminder of old times, and of the business done before the country north and west of us was intersected by Railroads.” (*Carbondale Advance*, January 12, 1861, p. 2)

A. O. Hanford severely hurt as he attempted to get upon a loaded train of cars, 1861:

“**Serious Accident.** / Mr. A. O. Hanford, of this city, was severely hurt upon the Railroad near his Steam Mill, three miles below town, on Saturday last. He attempted to get upon a loaded train of cars, but failed by a misstep. He was shoved upon the rail before the train for some distance, but fortunately was extricated without the wheels passing over him. He was much cut and bruised however, and scales of iron some inches in length have been extracted, but he is likely soon to recover.” (*Carbondale Advance*, June 15, 1861, p. 2)

More coal shipped this season than last:

“**The Coal Business.** / The present season has been one of great energy and prosperity on the part of the Del. & Hud. Canal Co. in their Coal operations. From and through this place they had shipped up to the close of last week, 675,570 tons, being an increase of 249,668 over last season's business to the same time. While the Delaware & Hudson have increased thus largely their shipments, most other companies have decreased. The Pennsylvania Coal Co. have this year sent of 533,501 tons against 600,401 tons to this time last year. . .” (*Carbondale Advance*, November 2, 1861, p. 2)

Flush times for Pennsylvania agriculture, 1865-1873:

The outbreak of the Civil War in 1861 quickened the sluggish economic life of the nation into feverish activity. Agriculture prospered as never before. The greatly accelerated domestic demand for food was accompanied by increased European demand because of poor harvests there in 1860, 1861, and 1862. The years from 1865 to 1873 were flush times for Pennsylvania agriculture. Men made haste to get rich quickly. " 'It is probable,' said Samuel C. Moon in 1896,

'that at no time or place in the world's history has any community or its inhabitants enjoyed more of the comforts and social pleasures of civilized life than did the farmers of Philadelphia, Chester, Delaware, Bucks and Montgomery counties. . . during the middle half of the present century.' Other parts of the State, as well, blossomed under the genial warmth of this golden sun." (Fletcher, p. 366)

The coal region prospered during the Civil War:

"However much the late war devastated portions of country the Lackawanna and other anthracite regions never had so friendly and yet so fatal a salute by the hand of prosperity as this offered. The great Coal Companies, private operators, mines and laborers, shared in the sudden and extraordinary stimulus of coal activity." *Hollister*, unpublished typescript, on the Civil War, p. 168

D&H coal storage facilities filled, 1862:

"**The Coal Business.** / The repairs upon the Canal of the D. & H. C. Co., are taking more time than was at first expected. It is now expected to be ready early next week. The amount of coal stored at Honesdale has reached its maximum under present arrangements, and the Company has been obliged to discontinue mining and sending it over the Railroad until shipments can be made on the canal." (*Carbondale Advance*, July 12, 1862, p. 3)

Two deaths: Dominick Cooney and John Healey, 1863:

"Mr. DOMINICK COONEY, an old resident and miner in our city, was killed suddenly here on Tuesday, by an accident among the coal cars. He was generally respected, and his remains were followed to the Cemetery by a procession of several hundred of his neighbors and friends. / On that same day, a young man named JOHN HEALEY was *sun-struck* here so as to cause his death. He had recently arrived here from Ireland, and commenced work in America that morning." (*Carbondale Advance*, August 15, 1863, p. 2)

D&H stock goes up to 176:

"The Delaware and Hudson Canal Company has put its price up to \$10.50 for coal delivered in New York. Its stock has gone up to 176. . . -*Honesdale Dem.*" (*Carbondale Advance*, November 7, 1863, p. 2)

Canal closed during cold snap, new boats to be built, 1863:

"The Canal was closed by ice during the cold snap of last week. The coal brought from the mines is now being dumped on the deposit ground and in the 'pockets.' The past season has been a remarkably favorable one for the D. & H. Canal Company. Up to the second instant they had carried to tide water, 787,305.15 tons of coal. Up to the same time last year the amount was 581,963.19 tons—excess this year over last, 205,341.96 tons. The Company intend to do a large business next year. They have contracted for the building of one hundred boats during the coming winter, about one fourth of which number will be built at this end of the canal. The new boats are known as the 'Turner Log Bilge Boats,' some peculiarities of their construction have originated in the yard of Mr. Turner of this place. We understand that the new boats will carry

more, and are built at less expense than those of any former model.—*Wayne County Herald*.” (*Carbondale Advance*, December 19, 1863, p. 2). In the April 27, 1884 issue of *The New York Times* there is an article, titled "A PIONEER CANAL BOAT" about William Turner. Here is the body of that article: "HONESDALE, Penn., April 26. —William Turner, ex-Sheriff of Wayne County, who died a few days since in this village, age 72, built the first canal boat for the Delaware and Hudson Canal Company that was built on its line in 1849, when the canal was enlarged to its present capacity. The boat was finished before the enlargement of the canal was completed, and was delivered to the company in New-York by running down the Lackawaxen River to its mouth, then down to the Delaware to the mouth of the feeder of the Delaware and Raritan Canal, thence to New-Brunswick, N.J., and by the Raritan River from there to New-York Bay, and across the Bay to the city. The yard in which this pioneer boat was built, like all the other boat-yards along the line of the canal, has been idle for years. Hundreds of men were formerly employed by independent yards furnishing the company with boats, but the company has gradually ruined the business by giving the bulk of the work to Rondout builders. Nearly all the lumber used in boat-building at the lower end of the canal is cut within sight of the original boat-yards in this place and transported past their rotting buildings and docks and rusting machinery 108 miles, to be made into boats, which must then be hauled back to this end of the canal before they can take on their cargoes."

More coal shipped in one year than ever, 1864:

“Coal Business of 1864. / The shipment of coal for this season has closed here. / The amount forwarded to market by the Del. & Hud. C. Co. has been 848,681 tons, the largest amount yet shipped in one year. It exceeds last year’s shipment by 20,531 tons. / This year’s business has been a very prosperous one. Both Coal and labor have commanded high prices, and mutual good feeling has prevailed. / The Company having as yet no winter outlet for the transportation of coal directly to market while the Canal is closed, a difficulty now exists in regulating prices so as to do justice to both parties. An uncertainty exists as to the next year’s price of Coal, while unfortunately there is none as to the present price of the necessities of life. / We hope prices may be so adjusted as to allow the work to proceed satisfactorily after a brief delay.” (*Carbondale Advance*, December 17, 1864, p. 2)

Business is slow on the Gravity Railroad:

"Except the two daily Passenger Trains and the regular and occasional Freight Trains, there is no business now doing upon our Railroad. / As before stated, there is a difficulty in adjusting the price for labor to be done now, when returns are to depend upon the uncertainties of another season's prices. We fear there will be a considerable delay in the commencement of work." (*Carbondale Advance*, December 24, 1864, p. 2)

1863-1864: Cerebro-Spinal Meningitis Epidemic in Carbondale:

"OLD RESIDENT ON MENINGITIS EPIDEMIC / It Has [sic; perhaps 'Was' was intended] **a Trying Period in Carbondale's Early Days—Some Interesting Incidents.** / A well known citizen, one of the oldest residents of the city [clipping in Gritman scrapbook dated April 1, 1905] has prepared an interesting statement concerning an epidemic in this city of cerebro-

spinal-meningitis. The article is of interest at this time, in view of the threatened outbreak of the same disease in the Simpson portion of Fell township. / I see that there are fears of a recurrence of the epidemic of cerebro-spinal meningitis in this vicinity, he writes. Carbondale had the epidemic from December, 1863, to March, 1864. Our physicians had no experience in the treatment of the disease, and it was mere experimenting. Very few cases lasted twenty-four hours. If the disease lasted longer, it generally lasted for some weeks, during which time the patient suffered extreme pain. Angus Cameron was the only undertaker, and during the month of February he attended from seven to nine funerals a day. He would begin as early as 9 o'clock in the morning and went for others until all were buried. In the four months he said he had attended four hundred and sixty funerals, including some in adjoining townships. / Rev. Mr. Abbott attended over eighty funerals. The D. & H company sent some of the best physicians from New York, but they did nothing to help our physicians. The park was covered; with culm about three feet deep and set on fire, and unslaked lime was scattered in front of dwellings in endeavors to purify the atmosphere. / There were three cures made by unprofessional methods which we will name; though they may not be approved by professionals. There was one family in which the wife and five or six children were taken down. An employe of the husband said he would save one of the children. He filled a tub with quite warm water and put the boy in and held him there for a long time and his life was saved. / Two other cases were treated by giving the sick ones whiskey. One in Fell and one in Scott. The father told us that he gave his boy some whiskey and told him to walk, and as he showed no signs of intoxication he gave him more and continued to do so until he had drank half a pint or more. A very disagreeable smelling perspiration was produced but the treatment was successful in both cases." (clipping in a Gritman scrapbook, dated April 1, 1905)

Thomas Dickson named General Superintendent, 1864:

On the website that was located, on 09-23-09, by Carbondale City Councilman John Gigliotti about the donation of the Wurts family papers to the Hagley Museum, <<http://www.hagley.org/library/collections/manuscripts/findingaids/wurtsfamily.ACC1982.part1.pdf>> we read the following: "In 1864 there was a major staff reorganization at the Delaware & Hudson Canal Company. Thomas Dickson formerly superintendent of the coal department, was named to head the newly created office of general superintendent. An executive committee was created in 1865 that consisted of the president and up to four appointed members of the board of managers to meet at least once a week."

Richard W. Kellow began working for the D&H in the carpenter department, 1865:

In December, 1878, Richard W. Kellow was appointed roadmaster in charge of the Pennsylvania division of the D&H from Plymouth to Nineveh, NY. In the biographical portrait of the man in *PABRLCP*, pp. 658-59, we read: "Mr. Kellow, who is now roadmaster for the Delaware & Hudson Railway Company at Scranton, was born in Honesdale, Wayne County, Pa., September 16, 1844. . . / In the fall of 1865 [following service in the Civil War], Mr. Kellow entered the commercial college at Binghamton, N. Y., where he graduated in March, 1866. His first work with the Delaware & Hudson Company was as an employee in the carpenter department, where he remained a year, after which he was employed as a train hand for a similar period. For ten

years following he was a foreman in the track department, and during one year of this time assisted in building the road between Scranton and Carbondale, but in December 1878, removed to Scranton, having received the appointment of roadmaster in charge of the Pennsylvania division from Plymouth to Nineveh, N. Y. He has a general supply store here and is storekeeper for the track department. Since becoming roadmaster, he has superintended the building of the double track from Wilkesbarre to Carbondale, which has eighty-pound steel rails."

D&H conductor, Isaac Decker, to be presented gold watch, 1865:

"**Watch Presentation.** / The presentation of a Gold Watch, to Mr. Isaac Decker, late Conductor on the Del. & Hud. R. R., will take place at the Harrison House, on Monday evening next, at 8 o'clock. His friends, who contributed to the testimonial, are invited to be present." (*Carbondale Advance*, January 14, 1865, p. 2)

Gravity Railroad opens for the season, 1865:

"Work is now commencing here for the season. Some Loaded Cars have already passed over, and everything will probably be in full operation along the line of the Railroad in a few days." (*Carbondale Advance*, February 11, 1865, p. 2)

James Hosie killed in the line of duty by a deserter named Smith, 1865:

"**Tragic Death of James Hosie, Esq.** / We are pained to learn that Dept. Provost Marshal Hosie was shot while executing the duties of his office, in Newton township, in this county, on Monday afternoon of this week, about 3 o'clock. He was removed to Providence Borough about six miles, and lingered until Tuesday afternoon at 5 o'clock when he died. / We have not the particulars fully and positively. But the facts seem from reports to have been about as follows: He went on Monday with one or more assistants, to Newton township, to arrest a man by the name of Smith—a deserter. Calling at the house he was told that Smith was upstairs. He advanced to the foot of the stairs. Smith fired upon him from the head of the stairs, the ball entering his face below the eye and passing through lodged in the neck. / He rode to Providence, and after arriving at the Hotel there was able with some assistance, to walk upstairs to the parlor. A soldier with him is said to have been also shot on the same occasion, but not dangerously. / Mr. Hosie has been until recently a resident here, and was for many years Superintendent of the Company's mines. He since leased Mines at Archbald, and the Brennan Mines above town for a time, until entering the military service as Dept. Provost Marshal. / The Funeral services will we learn be held to-day, and his remains will be taken to Pittston for interment. / The resolutions of the Masonic Lodge of which he was a member, will be found in another column." (*Carbondale Advance*, February 18, 1865, p. 2).

Price of coal going down, 1865:

"The price of Coal continues to decline in the seaboard markets. This renews almost every week the difficulties in adjusting the price of labor so as to be alike fair and just between employees and employed. / Our leading city dailies seem to believe that the price of Coal is likely soon to reach nearly the old mark, or but little more than half the price of last season. We think this both unlikely and unfair until the other staple necessities of life reach a like low figure. Coal cannot

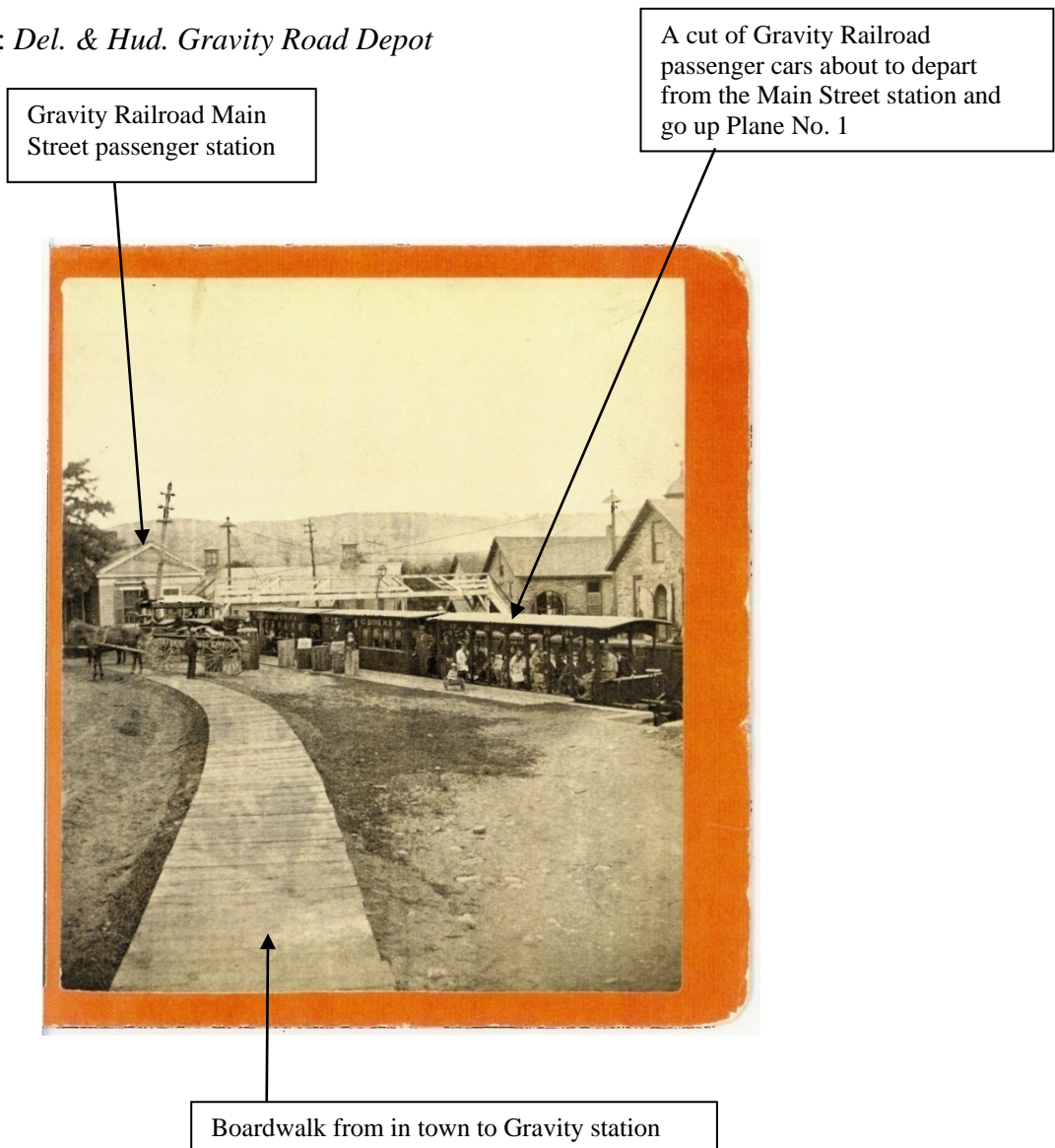
be produced at the old prices while beef and many other table supplies remain at such exorbitant rates. Still it must be borne in mind that the tendency is now downward, and prices generally will soon show lower quotations." (*Carbondale Advance*, May 27, 1865, p. 2)

Judson Taylor seriously hurt while working on the railroad:

"JUDSON TAYLOR, a young man employed as Carpenter upon the Railroad, was seriously hurt on Wednesday of last week. / One limb was so badly fractured as to make amputation necessary. He is since doing well." (*Carbondale Advance*, Saturday, May 27, 1865, p. 2)

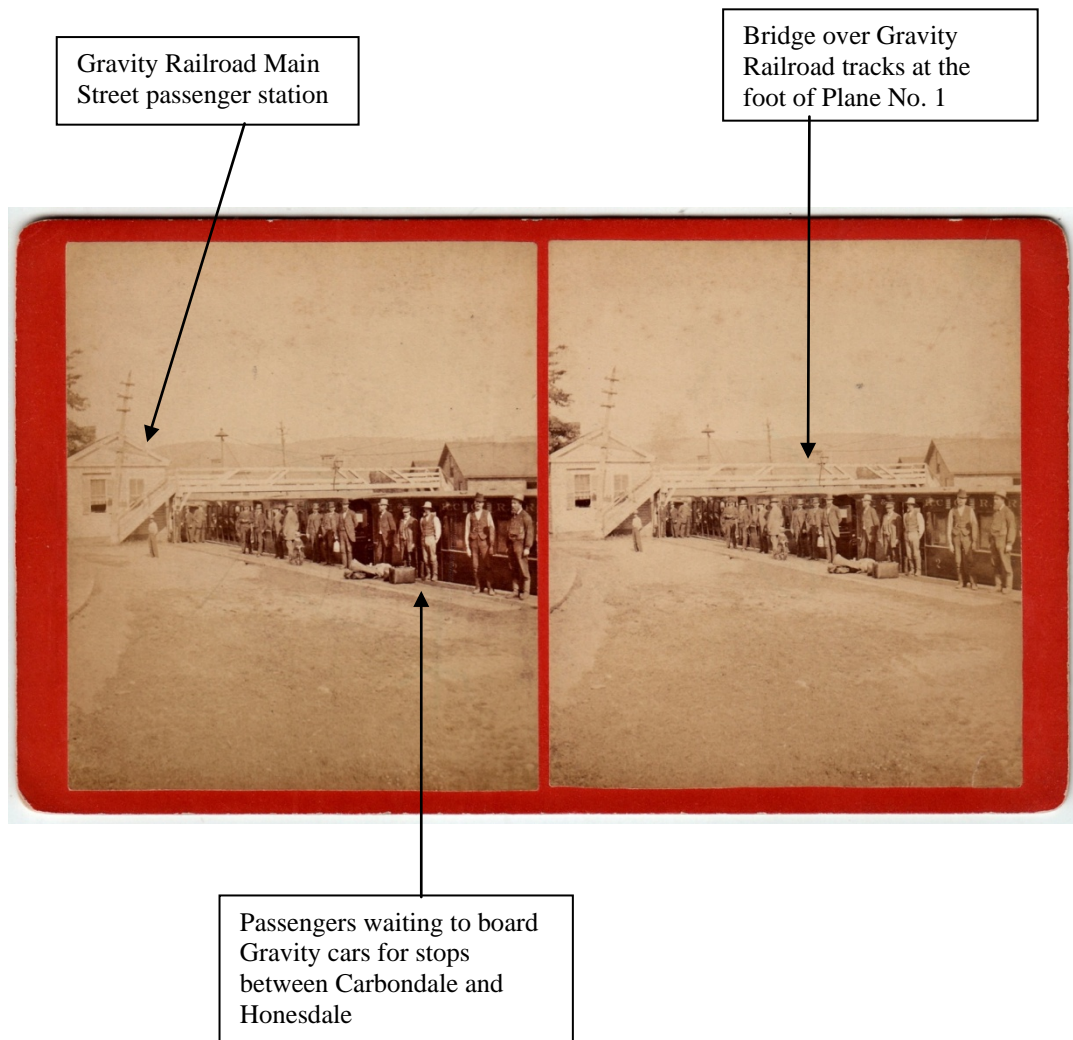
The three Hensel photographs given below were taken in the 1870s. The scenes portrayed are representative of the reality of mid-nineteenth century Carbondale.

Hensel No. 1190: *Del. & Hud. Gravity Road Depot*



This view was used by the D. & H. in one of its in-house publications: see page 191.

Hensel No. 1190: *Del. & Hud. Gravity Road Depot*



Hensel No. 1190: *Del. & Hud. Gravity Road Depot* (passenger station platform shown in upper right; more of a general view of the Gravity Shops area than of the Depot itself)

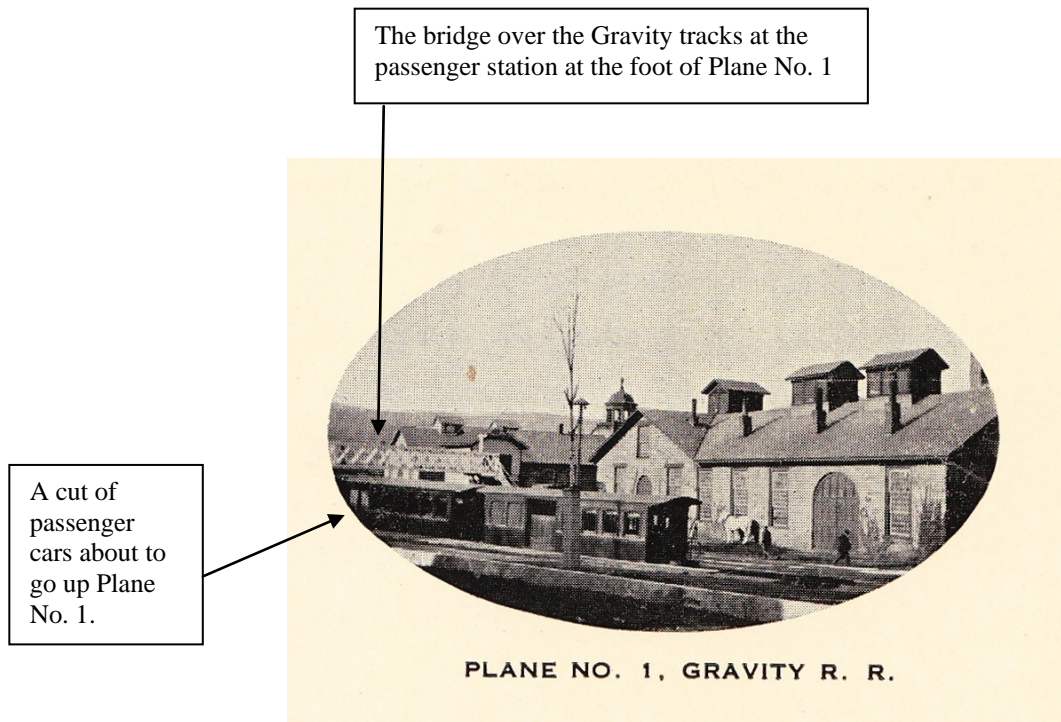
Loaded Gravity coal cars,
ready to go up Plane No. 1



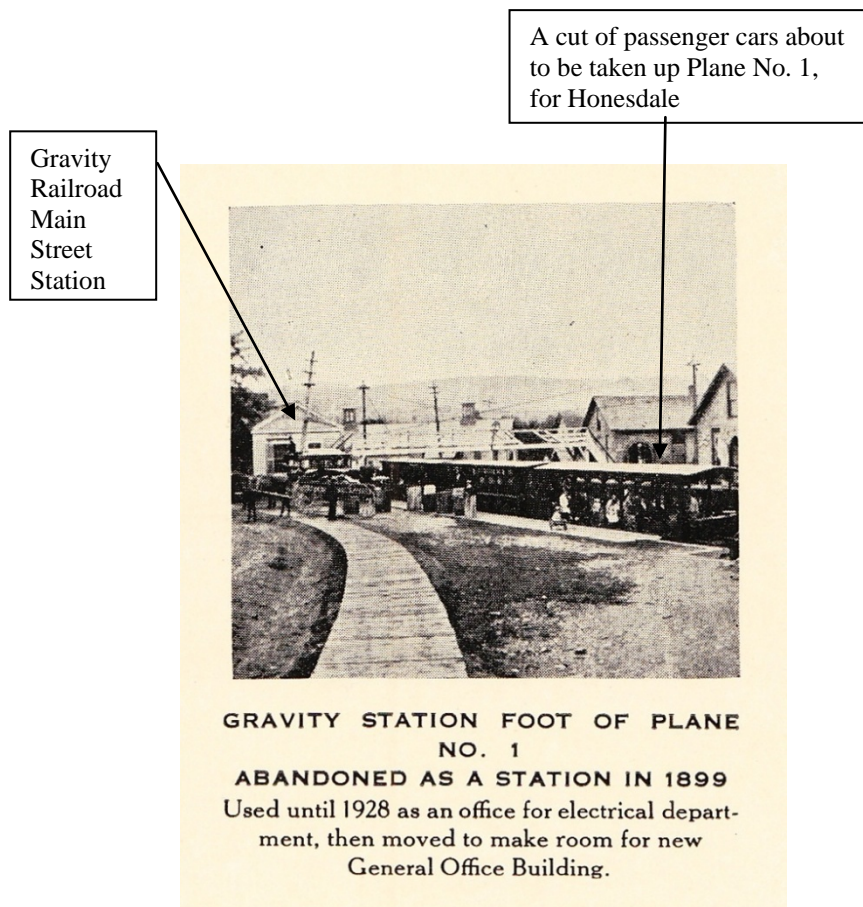
In this photo, the employees of the Gravity Shops have all come forward to have their photograph taken by Hensel. Note the components of Gravity coal cars on the left in this photograph.

Two additional Gravity Railroad views in Carbondale:

Plane No. 1, Gravity R. R., *Passenger and Freight Stations Delaware and Hudson,* The Delaware and Hudson Company Board of Managers Inspection of Lines, June 7th to June 10th, 1928, p. 37:



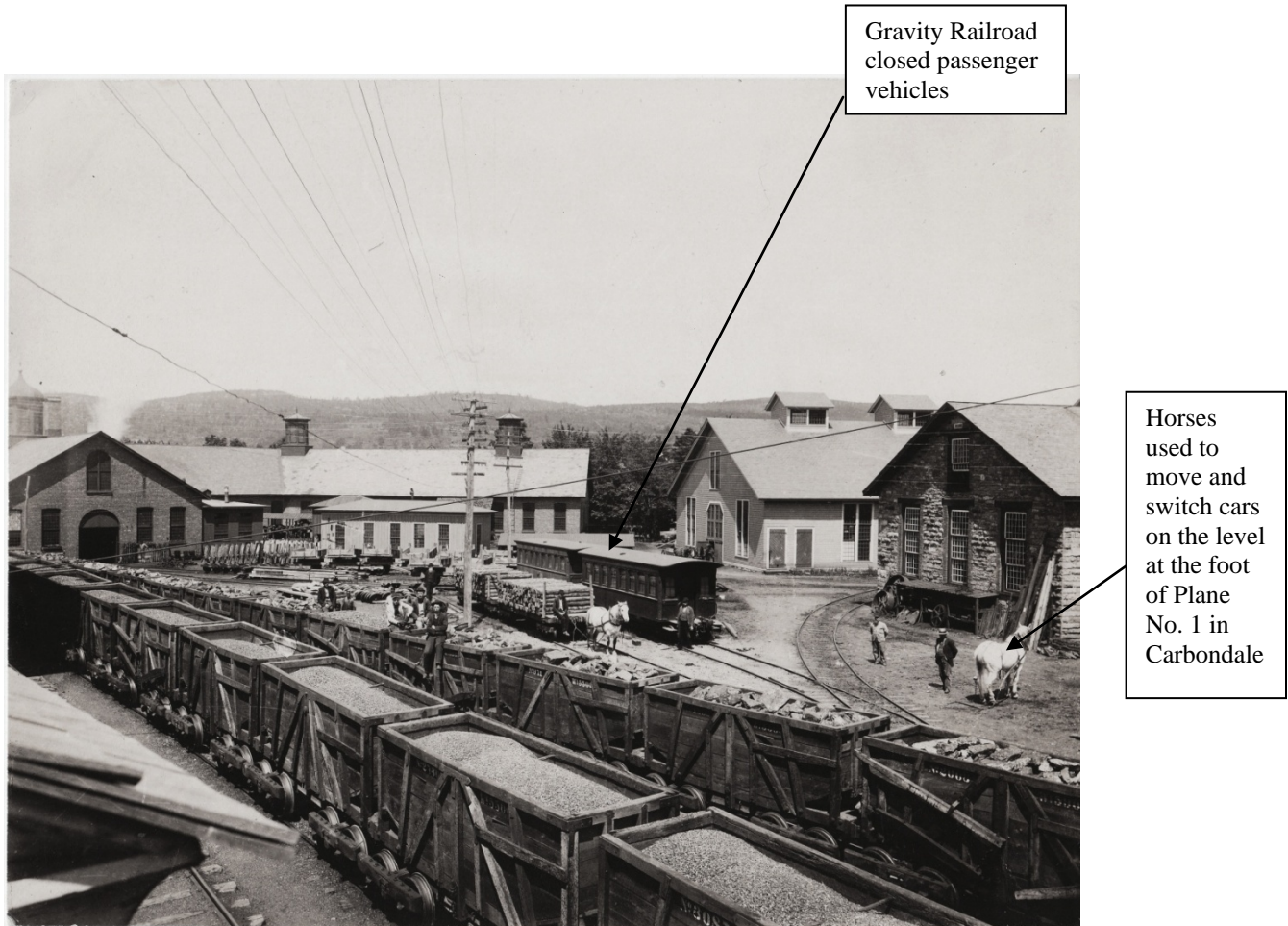
Gravity Station Foot of Plane No. 1, Passenger and Freight Stations Delaware and Hudson,
The Delaware and Hudson Company Board of Managers Inspection of Lines, June 7th to June
10th, 1928, p. 37:



The photograph given above is Hensel's stereoview No. 1190 that is given here on page 187.

The Gravity Shops, Part I (1829-1864)

(Part II will be presented in Volume V in this series: The Gravity Shops, Part 2 (1865-present))



Very nice description of the Gravity Shops from the early 1830s up to 1880, as published in 1880, p. 442:

"The Delaware and Hudson machine shop was started in a small wooden building near the site of the present building, soon after 1831. This was burned in 1845, and replaced by another wooden structure. This was burned in June, 1857, when the present stone building was erected. Work began in February, 1858, under the charge of James Dickson. The machinery was run by water power till 1870, when a thirty-horse power engine was added to the works. This shop repairs all the machinery of the gravity road, cars, stationary engines, etc. About 45 men are employed. Pierce H. Butler is master mechanic, William Johnson is foreman of the machine shop, and

Andrew Wylie of the blacksmith shop. The company has also three car shops, two having been burned. The present shop is a brick structure. The main part is 180 by 50 feet, and is used for building and repairing freight and passenger cars. This is a wing 175 by 50, used for woodwork. Cars for the gravity road are also built here. A paint shop is situated a short distance from the main shop. There is a small shop on the switch-back, and also one on the line of the Erie road, which are connected with this shop, and used for slight repairs. Axles are finished in the main shop. These shops can employ 175 men, but do not employ over 75. Thomas Orchard is superintendent of all car and repair shops, with George Egg foreman at the gravity shop, Frank Shannon of woodwork, William Boyd of the freight and passenger car shop, Patrick Powderly at the switch-back, Frederick Tappan at the shop on the Erie road, and Edward Blocksliigg of the paint shop. The car shop uses about 2,000,000 feet of lumber per year. The Delaware and Hudson locomotive shops were erected in 1876. They do a general business in rebuilding and repairing the locomotives of the company, and employ about thirty men. The shop has a capacity of from twelve to fifteen locomotives per year, and the expenses are from \$50,000 to \$60,000. There are thirty-six locomotives on the Pennsylvania division that depend upon this shop. The building is of brick, 125 by 75 feet. The engine-house has room for twenty-four locomotives. S. H. Dotterer is superintendent of the shop, with Jacob Eitel dispatcher, and John Seager foreman of shop."

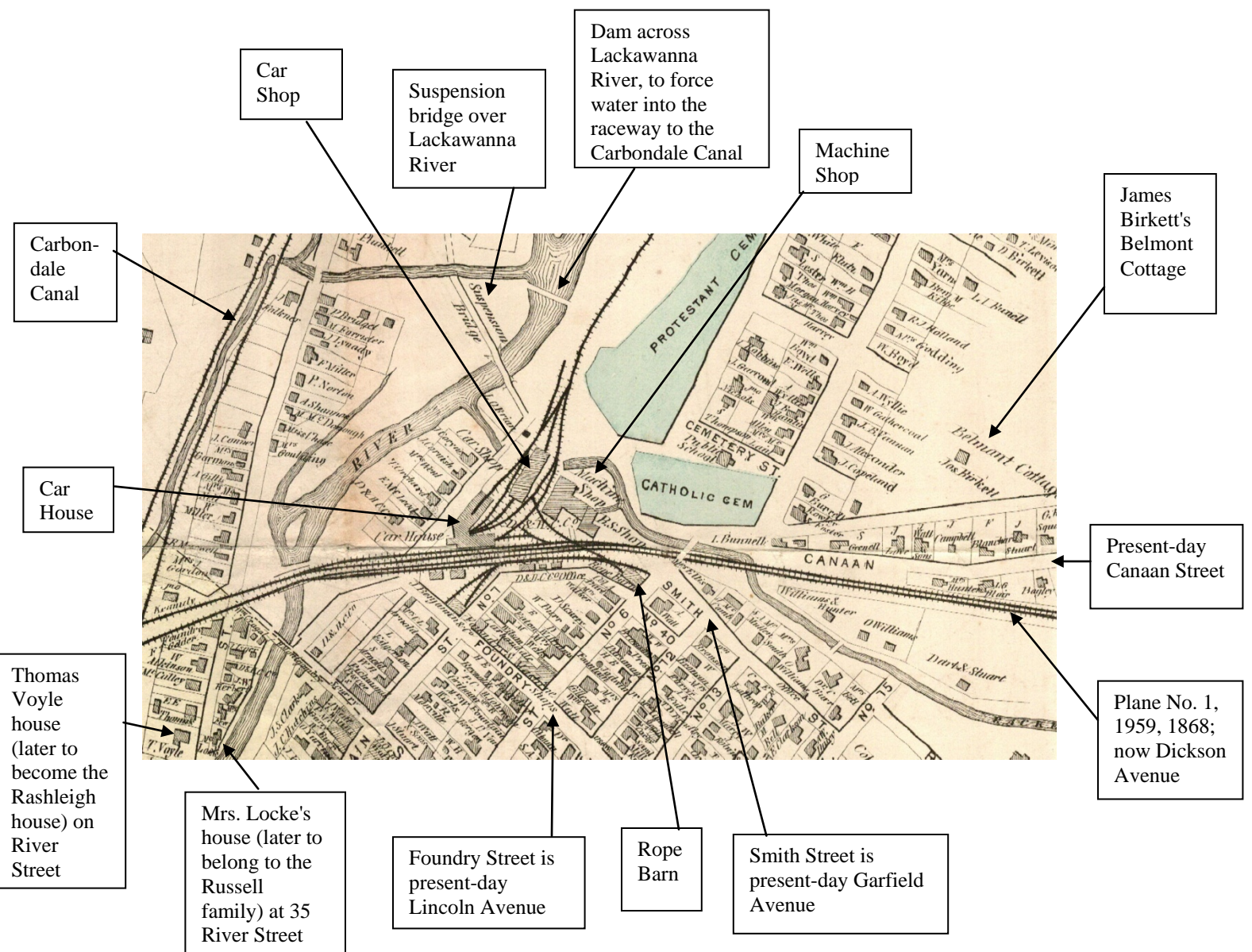
Here is another view of the Gravity Shops area. The specifics on this image are not yet known. Downloaded here from the Internet.

Cupola, not yet installed on top of Gravity Shop building

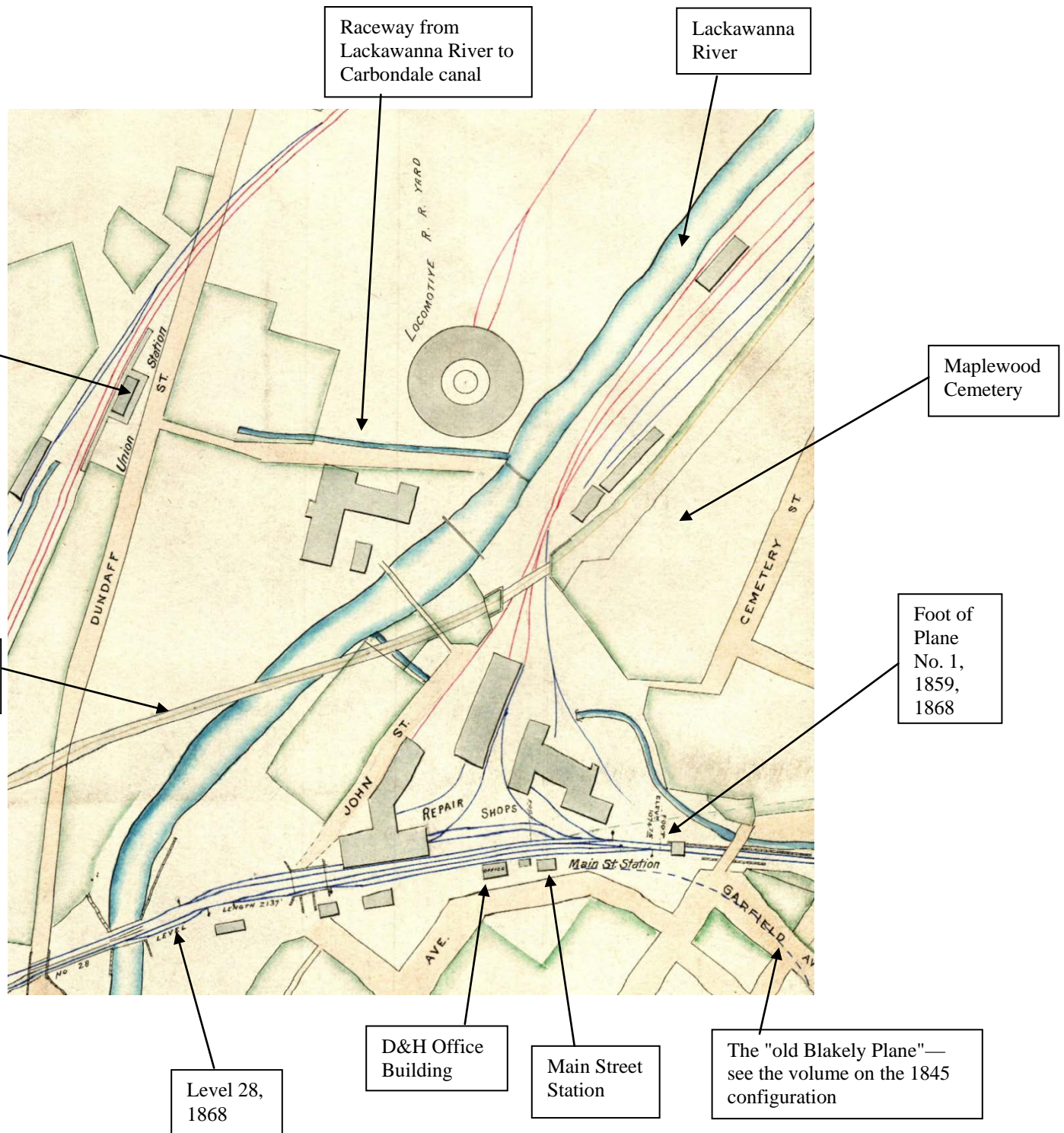


Level No. 28, 1859, 1868. This level was elevated. The cars and buildings on the left are located lower than the level.

1873 D.G. Beers Luzerne County/Carbondale map: Gravity Shops area



Gravity Shops area from 1895 Gravity Railroad map:



In the photograph given below, two of the Gravity Shops buildings are shown. In the background, on the far right, a portion of the YMCA can be seen. This photograph was published in the December 15, 1975 issue of the *Carbondale Miner*, as part of a story by Gerard Makarevich on the 1846 mine cave-in in Carbondale. The 2-story building on the left is the Storehouse.



In any discussion of the "Gravity Shops" one has to be clear as to which of the many shop buildings one is referring to: Machine Shops, Car Shops, Blacksmith Shops, &c.

MACHINE SHOPS

Machine Shop No. 1, frame building: circa 1832-1845

Machine Shop No. 2, frame building: 1846-June 8, 1858

Machine Shop No. 3, T-shaped stone building: December 1858—until torn down by Zazzera family

History of Machine Shops from an article in one of the Gritman scrapbooks:

“At the head of Main street are three shops [in 1899] connected with the Gravity. The first Gravity Railroad machine shop of which we have any authentic information stood of the side [possibly "one the site" check this SRP] of the present [1899] wire rope barn at the head of Main and Church streets and was about one third larger than that building. This shop was destroyed by

fire in 1845. Another frame building was erected where the stone shops now stand. It was completed in 1846 and burned on the 8th of June, 1858. [SRP can you find a newspaper article on this] Work was immediately begun on the present stone stops and they were finished in December of the same year. In these shops all repairing for the Gravity is done [Gravity still in operation] in the line of machinery; make all frogs, switches, and crossings, for both roads and also built the Gravity engines." Gritman scrapbook article)

"The shops in Carbondale were located at the base of Plane No. 1 and were first constructed of wood around 1832. These shops burned in 1845 and were replaced by another wooden structure. / Fire again destroyed the shops in 1857 [the fire was on June 8, 1858] and in 1858 the present stone structure was completed." ("In U.S. Transportation History, the Gravity Railroad Stands Out," *The Times Lackawanna County Centennial Edition*, Saturday, September 23, 1978, p. 35A)

In *Hitchcock*, Volume II, p. 329, we read: "The earliest manufacturing interest [in Carbondale] was the Delaware & Hudson machine shop a small modern building erected soon after 1831. This was burned in 1845, and was replaced by another wooden structure which was also destroyed by fire in June, 1857, a substantial stone building taking its place. :

1825, July 3: Patrick Archbald Reaves, who worked in the D&H machine shops very early in the history of the D&H, was born in Auriesville, NY. He died on February 2, 1912, at 3 Platt Place, Scranton. A biographical portrait of his son, Robert Reaves, is given in *Portrait and Biographical Record of Lackawanna County, Pennsylvania*, pp. 1068-69. From that biographical portrait of the son, we learn very interesting details about his father (Patrick Archbald Reaves) as well as his paternal grandfather (Peter Reaves). "His father, who was born on the Mohawk River in New York, was a son of Peter Reaves, a native of Ayrshire, Scotland, who came to America in young manhood, settled in New York and there engaged in farm pursuits until his death. By his marriage to Louise,* sister of the late James Archbald [chief engineer of the D&H and later mayor of Carbondale], he had a son, P. A., who came to Carbondale in youth and learned the machinist's trade in the Delaware & Hudson shops with Thomas, George and John Dickson. Afterward he was appointed master mechanic of the Pennsylvania Coal Company with headquarters at Pittston. Then going west, he engaged in the construction of mining machinery in Omaha and different places. After some six years in the west he returned to Pennsylvania and accepted a position as master mechanic with the Delaware, Lackawanna & Western in the mines south of Scranton, establishing his headquarters in Kingston." In that same biographical portrait of Robert Reaves, we also learn interesting details about the father, John Love, of his mother, Mary Love. "The maternal grandfather of our subject, John Love, was born in Scotland and brought his family here at the same time with John Dickson. Settling in Carbondale, he became a pattern maker for the Delaware & Hudson Company and continued in that position until his death." Robert Reaves, whose biographical portrait contains the interesting facts reported above about both his father's family (Reaves) and his mother's family (Love), was, in 1897, the General Superintendent of the Scranton Gas and Water Company.

*Archbald family papers give her name as "Hellen Louisa Archbald," born on February 25, 1805 in Little Cumbrae Isle, Scotland, died May 10, 1845 in Auriesville, NY.

Carbondale Gravity Machine Shops Burns, 1858:

"The Burnt district is the scene of considerable bustle and activity from the preparations making for rebuilding. The ground about the Company's Machine Shop site presents already much the same appearance as our Public Square at Wilkesbarre in the piles of stone on the border, but ours is yet minus the stately and magnificent ? pile of brick in the centre. / We observe the sills of a new Livery Barn are already laid on the Property of B. Watrous." (*Carbondale Advance*, June 26, 1858, p. 3)

New Machine Shop, 1858:

The 1858 Gravity Shops were constructed of stone quarried in Forest City. ("In U.S. Transportation History, the Gravity Railroad Stands Out," *The Times Lackawanna County Centennial Edition*, Saturday, September 23, 1978, p. 35A)

The new Machine Shop will be larger than the old one:

"The new Machine Shop, to be erected by the Company on the site of the one recently destroyed by fire, we understand is to be much enlarged in dimensions, and built of stone. We believe, it will be 30 feet longer, 10 feet wider, and a story higher, and be surmounted with a dome. This will make a vast establishment, which can do an immense business. It will be an ornament, also, to the place." (*Carbondale Advance*, June 19, 1858, p. 2)

The new Machine Shop is built of stone, iron, and brick, with a slate roof—the only building of that description in Carbondale:

"The new Machine Shop is now enclosed. It makes a fine appearance, and would be a great curiosity to any citizen who has never been abroad, as the structure is composed of stone, iron and brick, with a slate roof, being the only building of that description in this city.—We understand that the Company will take possession of it in a few weeks." (*Weekly Advance*, October 30, 1858, p. 2)

"IMPROVEMENT.—The removal of the lumber piles and No. 1 fire engine house, from the head of Main Street, and the erection of a large new building by the D. & H. C. Company, we notice as improvement the past week." (*Weekly Advance*, October 30 1858, p. 2)

The New Machine Shop is "the most substantial, durable, and expensive one ever erected in our town":

The New Machine Shop. / This structure erected this season by the D. & H. Canal Co., upon the site of the one destroyed by Fire in June last, is worthy of more than a passing notice. It is by far the best Building—the most substantial, durable and expensive one ever erected in our town. It is a stone building, with iron door frames and facings of brick, 120 feet in length by 50 feet in width, with three wings each 40 feet in length—making an area for machinery operations of 240 feet by 50 feet. The idea of strength, durability and utility combined strikes the beholder in

every portion of the Building. The whole being under the special supervision of JAMES DICKSON, ESQ., Head Machinist for the Company, is sufficient guarantee that it will be exactly adapted to the use intended. It will be a model Machine Shop, combining all the excellencies which can be secured with the money expended, and is very creditable to the Company, and to Mr. Wurts their Superintendent, and Mr. Dickson their Machinist. / Such a structure at this time is an omen of good to our town. It looks well for business in the future.” (*Carbondale Advance*, November 13, 1858, p. 2)

The Machine Shop cupola has a bell:

1858: “ ‘**THE BELLS—THE BELLS—THE MERRY BELLS.**’—A bell for the Delaware & Hudson Canal Company has arrived, and now hangs in the cupola which was erected for it on their new Shop, head of Main Street,—and its welcome tones now tell the sons of toil when their labor ceases at night, and its unwelcome tones hasten the dilatory steps of those behind time in the morning. Its cheerful notes call the hungry to dinner—but sounds a different key when its voice is heard recalling these same persons from their hurried meal. / Even the poor watchman no longer can sleep at his post, but now strikes the hours as they pass. We have now five bells on a space of a fourth of a mile, which in case of fire can be rung and create a clatter that would cause huge enjoyment for the citizens of Moscow, or a Russian population who are fond of that kind of music.” (*Weekly Advance*, December 18, 1858, p. 2)

James McAlpine was the first superintendent of the D&H Machine shop:

“James H. McAlpine was the first master mechanic [i.e., superintendent of the D&H machine shop], having charge of the shops at the foot of No. 1 plane. When he left the company’s employ James Dickson was appointed. He held the position until age and physical ability warned him to resign. Thomas Hurley was his assistant, and had charge of the engines between Waymart and Scranton when that road was built.” (*Joslin/Davies*)

James Dickson Superintendent of Machine Shop, 1860:

“**Presentation to James Dickson, Esq., Sup’t of the Machine Shop.** / The workmen employed in the Machine Shop of the Delaware & Hudson Canal Co., on Saturday evening last, presented their Foreman, Mr. JAMES DICKSON, with an elegant Gold Watch. It was got up expressly for the occasion, with an appropriate inscription engraven upon it. The presentation took place at the shop, immediately after closing work for the day. / Mr. JAMES VANNAN, Sen., made the presentation as follows-- / Mr. DICKSON—At a meeting held by the workmen under your charge, it was unanimously resolved to present you with a testimonial of their esteem for you, as a man, and a superintendent—and they have kindly appointed me to act as their representative. It gives me the greatest pleasure now to present you in their names with a Gold Watch, bearing this inscription on the inner case: / ‘Presented to James Dickson, Esq., by the Workmen under his superintendence, in the Delaware & Hudson Canal Co.’s Machine Shop, as A MARK OF THEIR ESTEEM. Carbondale, Pa., January 1st, 1860.’ / I hope you may long be spared to wear

it, and that every time you look at it you may remember that amongst the operatives of the Delaware and Hudson Canal Co. you have many warm friends. I may here observe as proof of the harmony and friendly feeling which exists between us, that there are many of the men which now surround you who have been in the employ of the D. & H. Canal Co., for ten, fifteen and twenty years, the greater part of which time they have been under your superintendence. / We have now come to the close of another year; many of us, as well as yourself, have grown gray in the service.—May the year we are about to enter upon still be marked by the same harmony which has been so conspicuous in past years, and may Mrs. Dickson and you be long spared to enjoy health and happiness, and when your race on earth is run, may you both receive in Heaven a richer reward than anything earth can afford. / To which Mr. Dickson responded as follows: / GENTLEMEN—I was taken by surprise when I was made acquainted with the object of this meeting—but the surprise certainly was a very agreeable one.—When I look at this beautiful time-piece—a gift worthy to be presented to any one who may stand in a more exalted position than I now occupy—it is with much pleasure, for I know, by this, that I have gained your confidence and respect—and with that confidence and our united efforts we shall always be able to attend strictly to the interests of our employers, and also to perform anything that may be required at our hands by our Chief Engineer, C. P. WURTS, Esq., with satisfaction and dispatch. / And now, Gentlemen, in conclusion allow me to tender you, one and all, my sincere acknowledgements for this mark of your esteem, and rest assured, when I look upon this beautiful time-piece, its associations will awaken in me feelings of kindly remembrances, whereby those who now surround me will not be forgotten. / The workmen now gave three cheers for their Foreman, after which they adjourned, to meet at the House of Mr. Gorman, at the invitation of Mr. Dickson.—Here an oyster supper was served up, after which appropriate sentiments were given and responded to by the different workmen. / The party broke up early, and all went home well satisfied with the proceedings of the evening. / [In this connection it is proper to state that the valuable watch presented on this occasion, and the one presented to Mr. Traphagan on a previous occasion, were both obtained and furnished by Mr. W. BURR, of this city. His excellent judgment of articles in his line is well attested in these as in other cases.]” (*Carbondale Advance*, January 7, 1860, p.2)]

James H. McAlpine's son, Charles Legrand McAlpine, died in 1884:

"DEATH OF CHAS. L. McALPINE. / Charles Legrand McAlpine, many years ago a resident of this place, died in New York city last week. He was a son of the late John [should read "James"] H. McAlpine, the first superintendent of the D. & H. Company's machine shop in this city, and a brother of William J. McAlpine, a prominent civil engineer and at one time State engineer of New York. . . Mr. [Charles L.] McAlpine was born in Albany, N. Y., in 1828, and came to Carbondale with his parents in 1830; residing here until about 1846. . ." (clipping in Gritman scrapbook, dated "Carbondale, January 18, 1884")

Death of William J. McAlpine, as reported in the *Carbondale Leader*:

“FORMERLY OF CARBONDALE. /Death of an Eminent Civil Engineer Who Once Lived Here. / There recently died in New York a man eminent in his profession who was nearly sixty years a resident of this town. He was William J. McAlpine, one of the best known civil engineers in the country. He was born in New York in 1812, and received his education in the public schools. In 1832 he removed with his father’s family to Carbondale, where his father, the late John [should read "James"] McAlpine, occupied the position of foreman of the D. & H. machine shop. After remaining here for two or three years he left for a wider field for his genius and ability. / His first engineering work of moment was when he was associated with W. W. Wright, of Geneva, as one of the chief engineers on the Erie Canal. Until 1846 he had charge of the Eastern Division of the Erie Canal. Then he became chief engineer of the dry docks of the United States Navy yard in Brooklyn. / In 1852 he was elected State Engineer and two years later he was appointed State Railroad Commissioner. He was at one time acting president and chief engineer of the Erie Railroad. The Emperor of Austria accepted his plans for the improvement of the cataracts of the Danube River in 1870 in preference to the plans presented by some of the foremost civil engineers of Europe. The extensive water works in Chicago were built under his supervision, and as consulting engineer he assisted in constructing the Toronto water works. / Throughout the civil war in this country he had charge of the railroads in the Southern States, and was appointed to the work of transporting troops. He was chief engineer of the new bridge over the Harlem River, was engineer in charge of the Tehuantepec Ship Canal, and was for many years chief engineer of the Arcade Railroad. He laid the foundation of the new Capitol at Albany. Few works of engineering of late have been undertaken without calling him in as consulting or chief engineer. He was elected president of the American Society of Civil Engineers in 1868, and was the first American chosen as honorary member of the London Society of Civil Engineers. He has published some valuable works on engineering, and received a gold medal valued at \$100 from the London Society.” (*Carbondale Leader*, February 20, 1890, p. 3)

James Dickson and Thomas Dickson, Recalled by Galusha Grow:

Hollister, in his unpublished typescript, pp. 155-56, offers the following about James Dickson and Thomas Dickson: "It was to this plain village [Dundaff] that James Dickson of Berwickshire Scotland emigrated in 1834 with his family after he had resided two years previously in Canada. He had three sons, Thomas, George and John who shared in the labors of the farm, and two daughters, who graced and assisted general household affairs. His [James Dickson] aptness and skill as a mechanic, commended him favorably to the Company at Carbondale in whose service he had filled a position of confidence and appreciation for the last forty-six years. In 1836 he removed his family to Carbondale. / This same year that this Scotch artisan settled in Dundaff, Hon. Galusha A. Grow, a bright Yankee from Connecticut, located upon a farm some sixteen miles west of Carbondale. This gentleman, in whose wide national reputation all Pennsylvania feel an honest pride, in a speech delivered upon the occasion of the opening of the New York & Canada Railway in November 1875 thus gave his recollections of the Dickson family. / 'Among the earliest recollections of my childhood was a trip on the Delaware & Hudson Canal. It was then the only line of transportation which emigrants could take from New England to

Northeastern Pennsylvania. My mother set out with her family to seek a new home in the West, taking a Canal boat that ran as far as Honesdale. At one point on the trip the Captain tied up for two days. After many days we arrived at Honesdale, which was our first resting place. We could now build miles of railroad in less time than that journey took. At Honesdale we found a neighborhood of new settlers. Mr. James Dickson, from his home in Scotland had just arrived by the St. Lawrence and the lakes. He had rented a farm there, and leaving Thomas with his mother on the farm, he went into the machine shops of the Delaware & Hudson Canal Company. After a while I went to drive oxen on the farm, and Thomas went to drive mules for the Company. One day he undertook to drive a balky mule, and after a severe struggle made him go the way he wanted him to; and from that day to this, he has made everything from a donkey to a locomotive go the way he wanted it.' "

Death of James Dickson:

The earthly remains of James Dickson, the father of D&H President, Thomas Dickson, are interred in Maplewood Cemetery, Carbondale.

Photograph by the author of the Dickson obelisk, Maplewood Cemetery, 2008:



On July 19, 2013, we learned from Judy Gowat (30 John Street, Carbondale) that her maternal great grandfather, William Best Walker, was a marble cutter who worked on the Dickson monument in Maplewood Cemetery. From a paper in the collection of Ms. Gowat, we learn that

"William Best Walker [was] born in Bethany Pa. April 12th 1849. The son of Francis and Ann (Best) Walker. Natives of Southampton, England. The family came to America about 1840 located at Phila. Where the father engaged in hotel [work] for 2 yrs then moved to Bethany where he purchased a farm. . . [William Best Walker] was educated in the common schools. At the age of 14 yr's [he] engaged with M. B. Peck of Honesdale, Pa. to learn the marble cutting trade. After serving an apprenticeship of 3 yrs. He went to Carbondale Pa and worked on the Thomas Dixon Monument; he then served a 3 yr's apprenticeship at the Barber's Trade. . . Mr. Walker was married Feb 22, 1870 to Miss Sarah Ann. Daughter of Benjamin and Olive (Porter) Gunsauls natives of New York and Connecticut respectively. . ."

Obituary of James Dickson from the *Carbondale Advance*:

"Death of James Dickson. / The venerable James Dickson, for more than forty years a very prominent citizen of our town, died at his rooms at the residence of his son-in-law, Mr. Andrew Watt, on Thursday afternoon, May 6th, at half-past four o'clock. Thus closed peacefully, and in hope of a blessed immortality, a life exceptionally honorable, useful, and successful. Deceased was the father of Thomas Dickson, Esq., president of the Delaware & Hudson Canal Company, of Geo. L. Dickson, Esq., president of the Dickson Manufacturing Company, of Mrs. Andrew Watt of this city, and Mrs. John R. Fordham of Scranton. All of his children have laid aside other responsible duties, and have been at his bedside during his last days. He was taken seriously ill on Wednesday, April 28th, one of the first symptoms being the alarming one of persistent hiccoughs, which it seemed impossible to allay. On Saturday his son Thomas was telegraphed for. He left New York at 1 p. m. with his wife, and arrived by special train from Scranton at seven o'clock on Saturday evening. / Deceased was born in Berwickshire, Scotland, where he learned the trade of mill wright, in which he was regarded as especially expert. He was there married to Miss Elizabeth Linnen, and there his son Thomas was born. His married life was singularly happy, both himself and his wife cherishing for each other the deepest affection. / During the fourteen years that have elapsed since the death of Mrs. Dickson, he has very fondly cherished her memory. / In the year 1832, he removed with his family from Scotland to Canada, whence after a two years residence he came to Dundaff, and soon after to Carbondale. Here he entered the employment of the Delaware & Hudson Canal Co. as machinist, and soon attained to the position of master machinist for the company, a position which he filled to their perfect satisfaction for many years, and until advancing age and its inevitable infirmities, made him desirous of being relieved from its responsibilities. / In all the characteristics which command respect, and inspire strong and universal public confidence, Mr. Dickson had few, if any superiors. Strictly just and honorable in all business transactions, and exemplary in all the relations of life, he has left behind him a record unblemished, and without spot. His memory will be fondly cherished, not only by his children and immediate relatives, but by our whole community. / 'Mark the perfect man, and behold the upright, for the end of that man is peace.' / His life and his example are worthy of all imitation, and through them, 'being dead, he yet speaketh.' / He has been for many years an elder in the Presbyterian Church in this city, his whole life testifying the sincerity and earnestness of his christian character, and his contributions

for the benefit of the church have always been generous and liberal. / The funeral service will be held at the church on Sunday afternoon, May 9th, at half-past two o'clock. The burial casket will not be opened at the church, but friends that wish to view the remains will have the opportunity from one to two o'clock on that afternoon, at the residence of Mr. Watt, just previous to their removal to the church." (*Carbondale Advance*, May 8, 1880, p. 3)

Obituary of James Dickson from the *Carbondale Leader*:

"DEATH OF JAMES DICKSON. / The sudden and alarming illness of the aged, usually leaves but little hope of a recover; and so our readers will not be surprised at the announcement of Mr. Dickson's decease. He was gathered to his father's on Thursday last, at the residence of his daughter, Mrs. Mary Watt, in this city, surrounded by his children, full of years and honors, leaving a record of a prominent and useful life in our midst. The deceased was born in Berwickshire, Scotland, on Christmas day, in the year 1801. His father was a man of some prominence in the community in which he lived, and participated as a subordinate officer in the Scotch troops under the Duke of Wellington at the battle of Waterloo. Young James learned the trade of millwright and machinist, and worked for a considerable time at his trade in Manchester, England. He was married at an early age, and in 1832, with his wife and five small children he came to America, intending to settle in Canada. He remained there only about two years, when he concluded to go to New York, but while making preparations to move, he fell in with a friend who advised him to turn his steps this way and purchase a farm in Greenfield, which he at length concluded to do. It was his original intention to leave his family on the farm, and seek employment at his trade until he had gained a competence. In pursuance of this plan, shortly after his arrival here and concluding of the purchase of his farm, he returned to New York, where he remained for eighteen months. So well was he pleased with his situation in that city that he determined to take up his residence there, and he came on to make preparations for removal, when he fell in with that good man, James Archbald, who prevailed upon him to take a position in the Company. He then concluded to make Carbondale his permanent residence, abandoned his farm, and removed his family immediately to this place. Up to this time and for some years, while employed as a journeyman machinist, and afterwards as head man in the shop under John H. McAlpine, life in the Dickson family had been in an humble sphere, but on the resignation of Mr. McAlpine of his position as Master Mechanic, Mr. Dickson was promoted to the vacancy, and with the increased pay, and the advancing age of his boys, who had become self-sustaining, he was assured a reasonable competence, and a commanding prominence among his fellow-men. Although practically retired from his position by reason of age and infirmities for several years past, his connection with the Company he had served so long and well, did not cease, and he was, on the day of his death, nominally Master Mechanic. / Mr. Dickson was a man of very positive character, and faithful to his convictions. He had a well balanced mind, and clear intellectual perceptions, but when once fixed in his determination could very seldom be moved. In late years he amused himself in inditing [sic] articles of both prose and poetry, many of them bearing the stamp of strong intellectual and imaginative powers. In personal intercourse, he was dignified, but always affable and polite. His friendships were lasting, and his unpublished acts of

benevolence frequent. His religious faith seemed to take hold of his very nature; and was as unshaken by the attacks of scientific philosophies, as the rocky hills by the terrific thunderbolts. His place in the church was one of prominence, and he loved the ordinances of the House of God, with all the fervor of his soul. In the family circle he exhibited all those traits which inspire reverence, obedience, and a firm and lasting love. As a father, he was stern and unyielding in his demands for implicit obedience, but at the same time kind and considerate in the treatment of his children. The position which they now occupy in society and the affection and reverence which they have evinced for the deceased, is evidence that a father's duties were faithfully and successfully discharged by him. As a husband he was loving and true; and he well appreciated the wealth of affection bestowed upon him by the choicest treasure of his heart; and though fourteen years have passed since death ruthlessly severed their connection, to the last moment he fondly loved to dwell upon the intellectual graces and virtues of her character. / The deceased was thoroughly identified with the locality and interests of our city. Nothing could shake his regard for the place which had been so long his pleasant home—where the wife of his bosom had been laid gently to rest; and where the people had given so many tokens of their respect and confidence. His familiar form and face will be sadly missed in the church, in the streets, in our public places, and, above all, in the home circle of the beloved daughter whose filial offices have so long been the comfort and solace of his declining years. / The funeral of Mr. Dickson will take place on next Sabbath at half past two o'clock, P.M., at the Presbyterian Church. We are requested to state that for the convenience of those who desire to view the remains, an opportunity will be afforded at the residence on the same day from one to quarter past two o'clock." (*Carbondale Leader*, May 8, 1880, p. 2)

The funeral of James Dickson from the *Carbondale Advance*:

"Funeral of James Dickson. / The funeral services of the venerable and lamented James Dickson [Great Scot], whose death was announced last week, took place on Sunday last, at half past two o'clock, p. m., agreeably to arrangements made, and notice in our last issue. It having been announced that the burial casket would be open at his late home, the residence of Mr. Andrew Watt, for one hour, previous to the removal of the remains to the church, many hundreds of our people improved the opportunity to take a last look of one so highly esteemed and so long identified with all the best interests of our town. The children and friends of the deceased endeavored to carry out his wishes in the matter, and arranged for a plain and quiet funeral. But it being known that there were friends at Scranton and Honesdale and at intermediate places, that would desire to attend, for their accommodation a special train was run from each place. The train from Scranton consisted of ten cars, all crowded to their utmost capacity, and that from Honesdale of seven cars. When those trains arrived more than a thousand persons were added to the thousands that were out from our own city. [emphasis added] At about half past two o'clock, the funeral cortege left the residence of Mr. Watt for the Presbyterian Church, the pall bearers being James Stott, S. S. Benedict, Robert Maxwell, Henry Johnson, Merritt Wilson, James Copeland, John Gerrond, and John Campbell. The clergymen in attendance were, Rev. E. D.

Bryan, pastor of the Presbyterian church in which deceased has long been a ruling elder, Rev. Dr. Logan, pastor of the Presbyterian church at Scranton, and Rev. Dr. Cattell, president of Lafayette College at Easton, Pa. [Dr. William C. Cattell was one of Thomas Dickson's most intimate friends.] / The large church was densely packed, embracing the audience room, lecture room and gallery, and the services were very solemn and impressive. The church was draped with the emblems of mourning, and the countenances of the large audience indicated sadness, and a deep sense of loss. Rev. E. D. Bryan, pastor of the church, spoke with much feeling, and great appropriateness of the departed, of his high Christian character, his virtues, and his usefulness, and the great loss sustained not only by his immediate friends, but by the community. Rev. Dr. Logan followed, and dwelt upon the fact, that the death of a true christian should be regarded as an exaltation. God called his saints from earth to make them kings and priests unto him, in another and better world. Hence a funeral to exhibit and express our sorrow, should rather be regarded as a coronation, and an occasion of joy, for the advancement of friends to a higher and better state. Rev. Dr. Cattell spoke very eloquently in conclusion, commending the example of deceased as one worthy of being followed by survivors, by the young and the old. / The music on the occasion was very appropriate, and fittingly rendered by a quartette of the church choir—embracing Messrs. J. E. Burr, Arthur Bryan, and Misses Gussie Lathrop and Grace McMillan. Miss Gertie Whaite presided at the organ. / The following children and grandchildren of the deceased were in attendance: / Mr. and Mrs. Thomas Dickson, and children, James P. Dickson and wife, Col. H. M. Boies and wife, Thomas F. Torrey, and Joseph Dickson, a student at Lafayette College. / Mr. and Mrs. John R. Fordham, and daughter Mamie. / Mr. and Mrs. Geo. L. Dickson, and son, Walter Dickson, a student at Cornell university. / Mr. and Mrs. Andrew Watt. / Mrs. Huntington, of Glens Falls, N. Y., formerly widow of the late John Dickson, their son Thomas Dickson and daughter Lizzie Dickson. George A., eldest son of the late John Dickson, is now in Chili, South America. / Also, of other relatives, P. H. Ballantine and wife of Newark, N. J., and James A. Linen, cashier of First National Bank, Scranton. / Among the hundreds that we recognized here from other towns, space will only allow us to mention a few: / H. S. Pierce, Lewis Pughe, W. N. Monies, N. P. Cramer, J. M. Poor, John Raymond, Judges Hand and Hanley, J. A. Scranton of the *Republican*, G. W. Benedict of the *Journal*, John Tomlinson of the *Times*, J. J. Albright, E. P. Kingsbury, C. P. Jadwin, E. C. Fuller, E. W. Weston, A. H. Vandling, Z. B. Knapp, Andrew Nicol, D. B. Brainard, C. F. Mattes, C. P. Matthews, W. W. Scranton, J. C. Platt, Samuel Hines, R. T. Black, Silas Leach, Clarence Farnham, W. H. Perkins, D. N. Green, W. F. Halstead, A. W. Dickson, W. W. Winton, Wm. Connell, Sidney Boardbent, and S. G. Barker, of Scranton; John B. Smith of Dunmore; Stephen Torrey, Coe F. Young, John Torrey, Henry Wilson, of the *Citizen*, H. A. Woodhouse, C. C. Jadwin, Charles Petersen, L Grambs, Dr. J. Kressler, G. F. Wilbur, Wm. Muir, T. J. Ham, of the *Herald*, W. H. Dimock, of Honesdale; George Simpson, Robert Simpson, of Archbald; Edward Jones, Olyphant; John Jermyn, Jermyn; Geo. R. Love, New York; F. P. Grow, Glenwood; Rev. Abel Barker, Wyoming; Charles Graham, and Thomas Waddell, Kingston. Many of these were attended by their wives and families. / At the conclusion of the services at the church, the immense assemblage almost without exception moved in procession toward the cemetery, to their finely located burial lot.

Mr. Dickson, many years ago, caused a very large and beautiful monument to be erected there 'To the memory of the Dickson family,' and we believe the plot has been vaulted beneath the surface with substantial brick work. When the cortege reached the cemetery, a throng was ahead there, and an especial crowd near the Dickson plot. The services were short and appropriate, and in conclusion members of the order of I. O. O. F., of which he had long been a member, marched around the grave in procession, each member depositing an evergreen branch in the tomb. There were probably never before so many people in the cemetery as on this occasion. / The immense gathering of prominent citizens from all our adjacent towns and the whole section, was spontaneous, and could only have arisen from an irrepressible desire to pay respect to his memory. It detracts nothing from the meed due to him, to admit, that this desire was increased by the high position attained by his children, and the strong hold they have upon the public mind. People live over again in their children, and in cases where both command universal respect, they reflect mutual credit upon, and exalt each other. / Deceased had attained to the ripe age of 78 years and the world is the better for his having lived in it. While his death is a serious loss to his family, to the church in which he was an exemplary member and officer, and to our whole community, our sorrow should be tempered with gratitude that he has lived, and lived to make his life a blessing to all. Were we to seek carefully and philosophically for the causes which have made his life so successful, and his death so triumphant, prominent among them we should be obliged to reckon his strong, abiding, and earnest Christian faith. In him has seemed to be strikingly verified the scriptural command and promise 'Seek ye first the kingdom of God and his righteousness, and all these things shall be added unto you.' With this steadfast faith, during the years of his active life, were coupled untiring industry, firm self reliance, a faithful and energetic discharge of every duty, and careful avoidance of all debts and liabilities. A generous competence, and even affluence, were the early and sure reward. His example is worthy of all imitation, and as we look about us, in dismay, we may well ask, anxiously, 'upon whom shall his mantle fall.' " (*Carbondale Advance*, Saturday, May 15, 1880, p. 3)

The funeral of James Dickson from the *Carbondale Leader*:

"A NOTABLE FUNERAL. / The funeral of James Dickson was probably the largest that ever took place in this city. Besides the very large attendance of our own citizens, there was an immense influx of people from Scranton, Olyphant, Archbald, Jermyn, Waymart and Honesdale, among whom were many leading citizens. Special trains were run from Scranton and Honesdale, and other modes of conveyance were put in requisition to transport persons hither. The remains were viewed by a continuous line of people at the residence of Mr. Andrew Watt for more than an hour previous to the services in the church. Rev. Mr. Bryan, pastor of the Presbyterian church, of which the deceased had been for many years an esteemed elder, conducted the ceremonies. He was assisted in an able and feeling manner by Rev Dr Logan, of Scranton, and Rev. Dr. Cattell, President of Lafayette College at Easton. The addresses were brief, but eloquent and appropriate. The Presbyterian Choir, consisting of Misses Gussie Lathrop, and Gracie McMillan, and Messrs. Arthur Bryan and J. E. Burr; Miss Gertie Whaite presiding at the organ. The pieces sung were the 'Sweet Bye and Bye,' 'It is well with my soul,' and "I should not live always,' all of which

had been especial favorites of the deceased. The rendition of the music was exceptionally fine, and produced a marked effect upon the crowded audience. After the services the procession moved to the cemetery, where the remains were deposited in the family vault on the Dickson lot. The burial casket was elaborately trimmed with velvet; with silver mounted handles and profusely decorated with flowers. At the head was a beautiful wreath of white roses and calla lilies; in the center, a bed of violets; and at the foot, two miniature sheaves of wheat. All the services were conducted with the utmost solemnity and decorum; notwithstanding the immense throng in attendance, and the only motive seeming to actuate the people of our city, as well as the visitors from abroad, was to show the sincere respect which they cherished for the deceased, and sympathy for the friends who were following his remains to their last resting place on earth.”(*Carbondale Leader* of May 15, 1880, p. 2)

See also the newspaper article titled "MR DICKSON'S FUNERAL" that was published in *The Critic* on May 15, 1880, p. 3)

CAR SHOPS

History of Car Shops from an article in one of the Gritman scrapbooks:

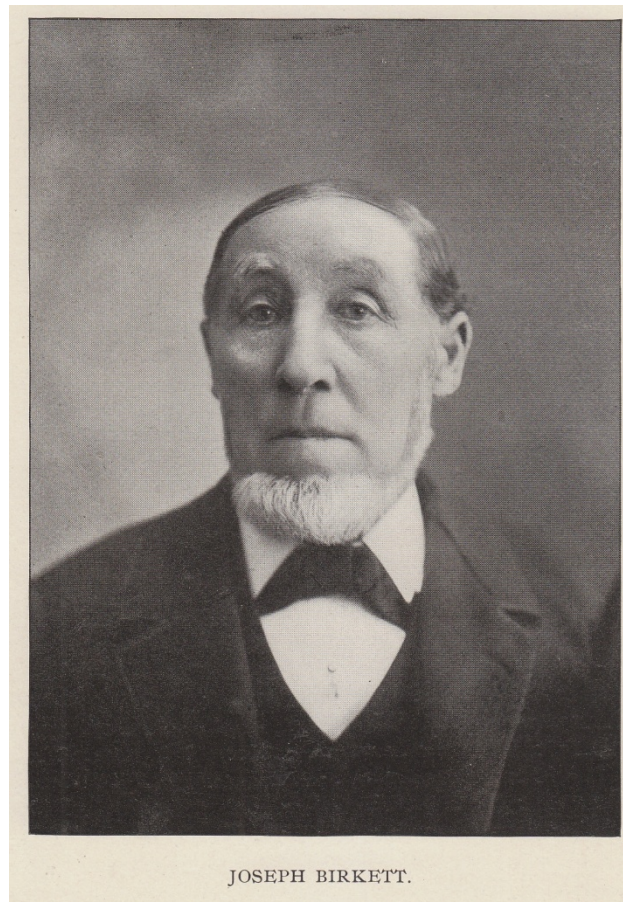
"The original car shops stood on the site of the old granary and were removed to the present site about 1844. Additions were built in 1851 and 1862. All were destroyed by fire on March 3, 1864, [SRP can you find a newspaper article on this] and rebuilt of brick the same year. The addition was built in 1869. The foremen in charge of this shop have been Mr. Eggleston, H. Grennell, Andrew Nichol, James Nichol, and Thomas Orchard, who has had charge since 1862. The Gravity passenger and coal cars are built in this shop also all passenger coaches for the locomotive road. / What is now the passenger car shop was formerly a lumber shed but was changed to a car shop in 1872 and rebuilt in 1889." (THE CELEBRATED GRAVITY RAILROAD. A Wonderful Example of Engineering Skill—The Car and Machine Shops, article in one of the Gritman scrapbooks)

Joseph Birkett, one of the leading citizens of Carbondale in the second half of the nineteenth century, worked in the C&H car shops in the period 1849-1854, under Homer Grinnell, and in the period 1856-1865, as assistant to Thomas Orchard. This we know from the biographical portrait of Joseph Birkett that is given in *Portrait and Biographical Records of Lackawanna County Pennsylvania*, pp. 487-488. Here is that portrait:

"JOSEPH BIRKETT, who is numbered among the prominent citizens of Carbondale, was born January 19, 1823, in Cumberland, a county in the northern part of England. The family of which he is a member originated in Scotland, but the date of their removal across the border is unknown. His father, John, and grandfather, William Birkett, were both for many years agents for the Dixon Manufacturing Company, and in religious belief were members of the Church of

England. The mother of our subject, in maidenhood Ruth Cragg, was born in Cumberlandshire, of Scotch ancestry, and in religious adherence was a Congregationalist, the faith of her family. / At the age of fourteen the subject of this sketch began to learn the carpenter's trade, and this he followed in his native land for some years. In the spring of 1849, accompanied by his wife, whose maiden name was Ann Drummond, he sailed for America, landing in Philadelphia, April 4 of that year. He crossed the Alleghany Mountains in the rude stage coaches of that day and finally reached his destination, Nashville, Tenn. On his arrival he found cholera raging, and not deeming it safe to remain, he again crossed the mountains, and on the 6th of July reached Carbondale. By this time his money was exhausted, so he stopped here and secured a position in the car shops of the Delaware & Hudson Railroad under the late Homer Grinnell, remaining here until 1854. He then went to Gibson and followed his trade for two years, at the same time engaging in farming. Since that time Carbondale has been his home / After his return from Gibson, Mr. Birkett was made assistant to Mr. Orchard in the car shops, and remained in that position until 1865, when, having purchased a tract of land in what is now the thriving northeast part of the city, he opened up coal mines. These he operated for four years and then leased to other parties, preferring to give his attention to the opening and improvement of that part of the city now comprised in the fifth and sixth wards. It is largely due to his efforts that this is now one of the most desirable residence portions of the city. His elegant residence in Birkett Street he sold some years ago, when his wife was in poor health and desired to be nearer the central part of the city. In the building up of the town he has been one of the prime movers. Every worthy enterprise has had his assistance. He is treasurer of the Electric Light, Heat & Power Company, director of the Crystal Lake Water Company, that furnishes the city with its excellent water service; for ten years he has been treasurer of the Maplewood cemetery, and is a stockholder in the Miners & Mechanics Bank. For two years he was a councilman, and for one year served as mayor of the city. He is a member of the Presbyterian Church and at one time was a trustee. Since 1865 he has been a Mason, is a Knight Templar, was for ten years treasurer of the blue lodge, and belongs to the Veteran Association of Scranton. / In 1843 Mr. Birkett married Miss Drummond, who was born March 13, 1823, in England, of Scotch ancestry. In 1893, after fifty years of happy wedded life, they celebrated their golden wedding. The union was one of those heaven-made alliances that bind together hearts in sorrow as in joy, in adversity and prosperity. She was fitted to be his companion and helpmate, for she possessed a happy disposition, a noble Christian character and a charity that knew no bounds. She dispensed here benefactions with a lavish hand, but with no desire for display in helping the poor and lowly. Her sterling worth was recognized by all, and she had many warm friends. Hers was a beautiful life, and when she passed away, September 19, 1895, there were many, both of the rich and poor, who felt they had lost their warmest friend, but upon none did the loss fall so heavily as upon her companion of fifty-two years, whom her death left along in the world."

Here is the likeness of Joseph Birkett, given on page 486 that accompanies that portrait:



Freight Store House erected:

“The Del. & Hud. C. Co. have recently erected a substantial Freight Store House near their Shops and office, upon the same site as that occupied for the purpose several years since. / The new Brick Car Shop is also progressing near the same place, upon the site of the former one.”
(*Carbondale Advance*, July 16, 1864, p. 2)

George Dimock quits railroading:

“George Dimock will to-night quit Railroading after a service of forty-five years and four months and go to work for Fred Tappan in the car shop on the flats [emphasis added] next Monday morning. He commenced working for the D. & H. C. Co. May 1st, 1838, on the gravity. For many years he run a train on the ten mile level and kept a boarding house at Prompton. He also kept store at that place for awhile. For the past five or six years he has been running on No.1 level. Mr. Dimock was always a valuable man for the company. He is now 62 years of age.”
(*Carbondale Advance*, September 8, 1883, p. 3)

This George Dimock is very probably George D. Dimock, who married Betsy Murray. In Volume II of Thomas Murphy's 1928 *History of Lackawanna County* there is a biographical portrait of George H. Dimock (pp. 887-888). If they are father and son, as it seems very likely that they are, (father born in 1821, son born in 1851) both father and son worked in railroading for very long periods of time, the father for 45 years (as of 1883) and the son for 59 years (retired in 1925). In *Murphy* we read: "**George H. Dimock**, retired, is the oldest engineer in Lackawanna County, having served in this capacity on the Delaware & Hudson Railroad for 59 years. He began on the old gravity road between Carbondale and Olyphant and in 1872 the steam and locomotive road was built between these points. Mr. Dimock remained continuously in the employ of this company until his retirement in 1925. He was born in Wayne County, Pa., April 16, 1851, the son of George D. and Betsy (Murray) Dimock. / To Mr. and Mrs. George D. Dimock six children were born, as follows: Benjamin, lives at Carbondale; Wallace, retired, lives at Carbondale; Louise, the widow of Warren Ellis, lives at Carbondale; George, the subject of this sketch; Mrs. John Copeland, lives at Carbondale; and John, deceased. / George H. Dimock spent his boyhood in Wayne County and attended the district schools, and then entered the employ of the Delaware & Hudson Railroad. [If he retired in 1925 after 59 years of service to the D&H, he began with the D&H in 1866.] In 1869 he married Miss Sarah Blanchard, his first wife, who died in 1874. To them were born two children, Edward and Sarah. Edward, a conductor on the Delaware & Hudson Railroad, lives in Carbondale, married Anna Norris, and they have five daughters. . "

Blacksmith Shop

L-shaped building

"The first blacksmith to open a private shop [in Carbondale] was I. S. Ditmar, who came in 1828, as foreman for the Delaware & Hudson Company. John Simpson, a Scotchman, was the next smith to establish a shop; he and James Lewis, also a blacksmith, came about 1833." *Hitchcock*, Volume II, p. 327

Andrew Wyllie was the superintendent of the iron department of the D&H blacksmith shops at Carbondale.

Here is the biographical portrait of the man that is given in *Portrait and Biographical Record of Lackawanna County, Pennsylvania*, 1897, p. 130: "ANDREW WYLLIE. The life of this gentleman, who for years has been superintendent of the iron department of the Delaware & Hudson blacksmith shops at Carbondale, affords an illustration of the axiom that 'grit and grace' have as their companion 'greenbacks.' With few exceptions, the men who have the grit to cope with the difficulties of life and the grace to bear hardships, will attain, if not wealth, at least the possession of a bank account sufficiently large to secure them against want and poverty in their old age. / A native of the county of Fife, Scotland, Mr. Wyllie was born in the historic town of

Kirkcaldy, eleven miles from Edinburgh, October 18, 1826. This shire was also the birthplace of his parents, George and Mary (Stanhouse) Wyllie, the former of whom died in early manhood. The latter, a lady of high literary attainments, was for forty years a teacher in Philips Institute in her native heath. Of her three children Elizabeth married James Louttit, an extensive manufacturer and dealer in cloth, now living retired in Kirkcaldy; George died many years ago; and our subject, was the youngest of the family. In youth he went to sea one voyage and on his return learned the blacksmith's trade in his native place, afterward worked at his trade in Manchester, England, for five years. / In the fall of 1848 Mr Wyllie came to America and was employed in Brooklyn at the time Taylor was inaugurated president of the United States. Later he worked for Hoe, the printing press manufacturer in New York. In 1851 he came to Carbondale, where he had been a short time previously, working in the shops of the Delaware & Hudson until the death of his brother-in-law. On his return here he resumed work with the company and since 1856 has been at the head of the iron department. A sturdy, conservative Scotchman, he guards well the interests of the company with which he has been connected for forty years or more. / April 26, 1854, Miss Isabella Diack, a native of Glasgow, Scotland, became the wife of Mr. Wyllie and they have three sons and three daughters, namely: Mary, wife of Oscar E. Histed, an engineer on the Delaware & Hudson road; Alexander, a machinist in the Delaware & Hudson locomotive works; George, who is employed in his father's department; Isabella, who married Frank Arnold, of Carbondale; Elizabeth, at home, and Thomas, a bookkeeper in the Pittston stove works. Like the majority of Scotch people, Mr. Wyllie attends the Presbyterian Church and is a believer in its doctrines."

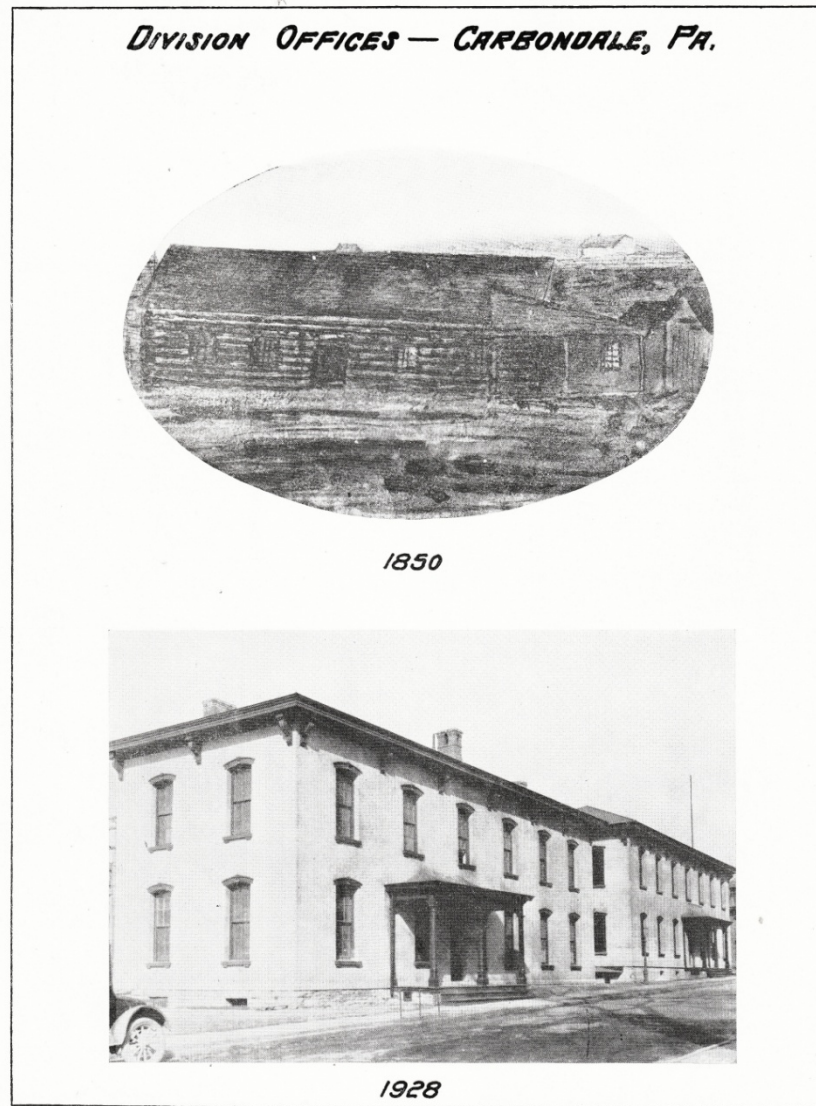
Office Buildings

New Office Building, 1859

There were two D&H Pennsylvania Division office buildings on North Main Street in Carbondale: the newer of the two, completed on April 23, 1928, now serves as the Ben-Mar Restaurant; the older of the two, now demolished, was immediately south of the one still standing. The older building was erected in 1859 and an addition was placed on it in 1865. The two buildings were connected by a tunnel, which provided passage for persons, wires, and pipes.

Shown below are the "Division Offices – Carbondale, PA." of the D&H in 1850 and 1928. About these two structures, we read in *The Delaware and Hudson Company BOARD of MANAGERS INSPECTION OF LINES : : June 7, 8, and 9, 1929*, the following: "The log cabinlike structure was erected by The Delaware and Hudson Canal Company to accommodate

the officers of the Gravity Railroad. It was torn down about 1850. In 1857 [no, it was in 1859] a more modern structure was constructed which is still [1929] in use, as a part of the present division offices. / The new addition to the division office was completed in April 1928. The two structures are connected by a tunnel, which provides passage for persons, wires and pipes." (p. 31)



- 32 -

Building on the left, 1859, now gone. Building on the right, 1928, now Ben-Mar Restaurant.

The representation, shown above, of the log-cabin like structure that was "erected by The Delaware and Hudson Canal Company to accommodate the officers of the Gravity Railroad" is sometimes identified as something else in Carbondale's history. In *Carbondale, My Carbondale* "A History of the Pioneer City" that was compiled in 1951 by Alice Voyle Rashleigh, a pen and ink rendering of the 1850 Division Office shown above is given on the first text page of that centennial book. There, the building is identified as "The quaint Log Tavern, first house built in Carbondale, Pa." The fact that the D&H, in 1929, identified the building as its Division Office is significant and important. Perhaps this building or a portion of it served as a tavern at one time? Perhaps this structure was the first house built in Carbondale? We'll never know.

More on the "log tavern" from Part 3 of P. S. Joslin's "**CARBONDALE IN ITS INFANCY. / A Series of Articles on the Early Days of The Anthracite City by One of Its Pioneers,**" *Carbondale Leader*, August 10, 1899, p. 2: "In 1824 they [William and Maurice Wurts] erected log house near where the Seventh avenue, station now is. It was at first kept as a boarding house for miners, and occupied by Uriah Williams an Hiram Frisbie. . . / Among the other early settlers [in Carbondale] was Salmon Lathrop, who was a contractor and built part of the Delaware & Hudson canal. In 1827 he became the occupant of the log boarding house having built a frame addition thereto. In 1828 he was succeeded in the occupancy by Sylvanus Jessup. J. M. Poor came as clerk for the Wurts' and E. M. Townsend the same year. In 1828 Mr. Lathrop opened a store in part of the log house, for the supply of the workmen. . . "

In an article titled "**EARLY LOCAL HISTORY / Called Up by the Death of Mrs. Susan E. Waterbury**" that was published in the October 13, 1892 issue, p. 4, of the *Carbondale Leader*, it is reported that Mrs. Waterbury died on June 12, 1892, at the residence of her son Charles in New York City. In that article, we read that "Mrs. Waterbury was the daughter of Deacon Sylvanus Jessup. She came to Carbondale with her father's family in 1828. There were then but few families in the place and a less number of residences. The Jessup family took up their quarters in the log house west of the river, near the old Weston mill, which had just been vacated by the family of Salmon Lathrop who had occupied it for the year previous. / Some years after when the Delaware & Hudson Canal company wanted the old house for an office, the Jessup family moved onto South Main Street. [emphasis added] In the meantime the deceased was married to John H. Waterbury, a merchant tailor, whose place of business was on Main Street about where Tralles' building is situated. / The wedding occurred in 1829. . . "

More on the log tavern:

In the biographical portrait of Charles E. Lathrop, president of the Carbondale Leader Publishing Company, that is given in *Portrait and Biographical Record of Lackawanna County, Pennsylvania*, pp. 181-184, we read: "Salmon Lathrop, father of our subject, was born in Columbia County, N. Y., in 1781. He became a railroad and canal contractor, and in 1822 built three miles of the old Erie canal in Herkimer County, N. Y., including the aqueduct across the Mohawk River at Little Falls. He came to Carbondale as an employe of the Delaware & Hudson Canal Company, to start their improvements here, at the same time taking possession of the log house that had previously been built by the company, to which he added a frame part. For two years he conducted their improvements, then erected a small building and embarked on the mercantile business. . . In 1838 he became a contractor on the North Branch Canal from Pittston to Towanda, which work occupied some years."

"The first dwelling erected within the present city limits of Carbondale was built in 1824, on what is now Seventh street. The owners were William and Maurice Wurts, of Philadelphia; its first occupants, Uriah Williams and Maurice Wurts. This house, built of logs, was erected by Wurts Brothers as the beginning of their purpose to develop the rich coal deposits lying beneath the large tract of land they owned in the Lackawanna Valley. The log house was used as a boarding house for miners by the first occupants until March, 1827, when it was opened as a hotel by Salmon Lathrop, a contractor on the railroad being built by the Delaware & Hudson Canal Company. He kept the place until 1828, when he was succeeded by Sylvester Jessup. Deacon Young came to the new settlement in 1826 to superintend the opening of mines, and in the summer came John M. Poor, clerk for Wurts Brothers and Eleazer M. Townsend. The name Carbondale, a most appropriate one, seems to have been bestowed by the railroad officials, as, prior to the completion of the railroad, boxes of tools for the laborers were shipped to 'Carbondale,' this proclaiming the new settlement in the wilds of the Lackawanna, and Carbondale has been the name through all stages of its development from hamlet to city." *Hitchcock*, Volume II, p. 326

"Salmon Lathrop who moved to the first log house in 1827, established a store there as well as keeping it as a house of entertainment. The following year he erected a frame building at the present corner of Main and Salem streets, which he occupied as a store and dwelling; he soon afterward sold to John M. Poor, clerk for Wurts Brothers, who came in 1828. . . / The first house of entertainment [in Carbondale] was the old log house kept by Uriah Williams and Hiram Frisbee as a boarding house for miners, 1824 to 1827, Salmon Lathrop following in 1827, keeping it as a hotel. In 1829 Mr. Lathrop built the Mansion House, on Main street, opposite his store; E. M. Townsend built the Railway Hotel about the same time, James D. Treat becoming proprietor of the later in October, 1833." (*Hitchcock*, Volume II, p. 327-28)

More on the log tavern from 1880 (p. 439-40):

"In 1824 they [William and Maurice Wurts] erected a log house near where the house of Patrick Early, on Seventh street, now [1880] stands. Uriah Williams and Hiram Frisbie lived in this house and boarded the miners. Deacon Young came during the summer of 1826, to superintend the coal operations. The next occupant of the log house was Salmon Lathrop, a contractor on the Delaware and Hudson Canal Company's railroad, who moved into the building in March, 1827. He kept the place as a hotel, and was succeeded in 1828 by Sylvester Jessup. . . / A store for the men employed by the Delaware and Hudson was established by Salmon Lathrop, at the log-house, in 1827. . . / A place of entertainment was kept in the old log house by Uriah Williams, and after him by Salmon Lathrop; then by Sylvester Jessup in 1829."

1859 is the correct year:

"The New Office erected by the Company in this place this season, is nearly completed and ready for occupancy. It is one of the best and most substantial structures of the kind in the State. It is far the best of which we have any knowledge." (*Carbondale Advance*, December 17, 1859, p. 2)

D and H building painted:

"The D. & H. C. Co.'s building at the head of Main street has received a coat of paint this week." (*Carbondale Leader*, September 26, 1874, p. 3)

When the newer building was being erected, the older building was cleaned on the outside and re-stuccoed to conform in appearance with the new building. Number 1 plane, going directly up the mountain to the east, rose from a point just at the rear of the new general office building. See article and photos in *The Delaware and Hudson Company Bulletin*, dated July 1, 1928 (article on p. 201; 4 photos on 202: "Outside View" [of both buildings; 'old' on left and 'new' on right; "Timekeeping Office," "Division Engineer's Office," and "Division Accountant's Office." "Occupy New Office Building / New Office Building at Carbondale, Together With Old Structure, Which It Resembles, Will House All of Carbondale's Office Forces / The new office building at Carbondale has been turned over to the several departments and all of the office organizations of the Pennsylvania Division, with the exception of the motive power department, are now comfortably located in the twin buildings on North Main street. / In 1918 the old office building was found inadequate to accommodate the official and clerical forces and the superintendent's office, the car, maintenance of way, and accounting forces moved to the building recently vacated opposite the station. This was rented property and on June 23, 1927, plans were laid for the construction of a new office building, adjacent to the old building in North Main street. The plans provided for the construction of a building along the same general lines as the old building and the exteriors of these buildings are very much alike. The structure is

eighty-two feet long by twenty-nine feet wide. / The old structure was erected in 1857 [no: it was 1859; see the article from the *Carbondale Advance* given above] and an addition placed on it in 1865. At that time it was finished on the outside with stucco. / The new quarters were completed on April 23, 1928. It is of brick construction, two stories in height, and has a spacious basement. / The first floor offices are as follows: maintenance of way general offices, office of division engineer, and rooms for the bridge and building master, roadmaster, clerks, and draftsmen; car department, general offices and office for divisional car foreman. / On the second floor, the accounting department main office is located as well as the office of the division accountant. Three smaller offices are occupied by the police, electrical and signal departments. / The basement contains file rooms, electrical work room, ladies' and men's rooms. / A subway connects the new and old buildings and is of concrete construction. All partitions in the new structure are of five-inch Pyrobar construction. Heat is furnished from the power house in the car yard and at present live steam, properly reduced, controlled by reducing valves, and governed by thermostatic control is being used. The interior is finished in pine woodwork and waxed maple floors. / The old office building has been cleaned on the outside and re-stuccoed to conform in appearance with the new building. / On the first floor of the old building the claim agent, the superintendent and his force, together with the timekeepers are located. On the second floor are the trainmasters, chief train dispatcher, power distribution room, all of which are partitioned off and made to appear as near like the interior of the new structure as possible. / Employees at Carbondale are exceedingly proud of their new quarters and pleased to have nearly all of the official and clerical family on the Pennsylvania Division again together in one location. The new and old structure will easily take care of all the forces, in addition to allowing more space for all."

The sundial on North Main Street in front of the D&H office buildings:

In a conversation in 1983 that the present author had with Mrs. Prudence (Wyllie) Wilce of Carbondale about the sundial that used to stand in front of the D&H office buildings on North Main Street, Mrs. Wilce stated that the sundial was located on the opposite side of the street from the D&H office buildings. That statement was reported by the present author in an article that he wrote ("What happened to sundial that used to adorn D&H offices on N. Main Street?") that was published in the September 14, 1983 issue of the *Carbondale News*. Malcolm W. Wheeler of Carbondale and Cy Grosvenor of Elmira, NY both disagreed with Mrs. Wilce on the location of the sundial and reported to the present author explicit data on the precise location of the sundial. On the basis of that data, and on the basis of a photograph brought forward by Robert J. Ashby of Carbondale, the present author wrote an article titled "N. Main Street had 1919 Victory Arch and Sundial" for the *Carbondale News* (October 5, 1983, p. 14). Here is that article: "Malcolm W. Wheeler, 78 Lincoln Avenue, disagrees with Prudence (Wyllie) Wilce on the location of the Carbondale sundial. Mrs. Wilce maintains that the sundial (see "What happened to sundial that used to adorn D&H offices on N. Main Street,?" NEWS, September 14) was located on the opposite side of Main Street from the D&H Shops, that is, opposite from Jack

Roe's Service Station. Mr. Wheeler maintains that the sundial was located on the same side of the street as Jack Roe's Service Station. Mr. Wheeler described the former location of the sundial as follows: 'At the southend of Jack Roe's Service station there is a telephone pole. The sundial was located two or three feet from where the telephone pole is located, between the sidewalk and the curb.' / Cy Grosvenor, Elmira, NY, agrees with Mr. Wheeler as to the location of the sundial. With is letter of September 17, 1983 to this writer, Mr. Grosvenor included a line drawing of the west side of North Main Street between Lincoln Avenue and North Church Street in about 1920. / On that drawing, which is reproduced here, the position of the sundial is indicated. / On September 20, 1983, Robert J. Ashby, 9 Lunny Court, brought into the NEWS the photograph that is reproduced here—taken by Cramer Studio—of the 1919 Victory Arch on North Main Street. The building that is seen under the arch is one of the former D&H office buildings, presently the Ben-Mar. At the far right is the YMCA building. Directly in front of the left portal of the arch, between the sidewalk and the curb, can be seen the Carbondale sundial. Photographic evidence, therefore, support the hypothesis of Messrs. Wheeler and Grosvenor. I asked Mr. Wheeler if he had any idea as to where the sundial was now located and he said: 'I understand that the sundial was taken to by the B. & B. (Bridge and Building Department of the D&H) men. Then it was taken to Albany. Then it was returned to Carbondale to the Police Department. Mel Norris was the foreman at Oneonta. He's still alive and he may know what became of it.' / The keystone at the center of the arch, above the 'Welcome Home' sign, bears the following inscription: "The D&H June 25, 1919." The text on the small plaques that are attached to the bottom section of each portal reads as follows: 'Erected by Delaware & Hudson Employees 6-1919.' The sign on the side of the wagon reads as follows: 'The D. & H. Power Dept. Welcome Their Heroes D&H Federated Trades D&H.' / A photograph, also by Cramer, of the sign that is attached to the rear of the vehicle that is sown in this photograph, was also taken into the NEWS on September 20th by Robert J. Ashby. The text on that sign reads as follows: 'Honor Roll Employees of D. & H. Motive Power Department Pennsylvania Division Serving in the United States Army & Navy.' The names of the following D&H employees, as well as their branch of service, are listed on that sign: Walter Adams, Army; Emmett Atkinson, Army; Walter Burham, Army; Albert Bound, Army; Gerald Buckley, Army, killed in action; Otto Baldwin, Army; Robert Carter, Army; William Connell, Army; Charles F. Creegan, Army; Joseph Casey, Army; James Devanney, Navy; Charles F. Doud, Army; William Duggan, Army; Dennis Finnegan, Army; Joseph Feeney, Army; Clement T. Farrell, Army; Thomas Finnegan, Navy; Francis Gilroy, Navy; Thomas A. Judge, Navy; Bernard J. Kelly, Navy; John J. Linnen, Army; John G. Lynady, Army; Edward Mc Donough, Army; Frank McNulty, Army; Arthur Madison, Army; William Moffit, Navy; Sidney Philpot, Army; Niles Price, Navy; Joseph Pettinato, Army; Raymond Powderly, Navy; Joseph Rouland, Army; William Rowe, Navy; Donald Stanton, Navy; Ralph Sirianni, Army; Joseph Tomain, Army; Thomas A. Winn, Navy; William E. Wint, Army; Henry A. Weber, Army; Michael A. Toole, Army; Henry Snyder, Navy; Joseph Auman,

Army; Joseph Loftus, Army; Ernest Perry, Navy; Patrick Tully, Army; Francis Judge, Navy; Albert Doyle, Army; William Lindsey, Army; Francis Martin, Army; Paul Buchert, Army; Clinton O'Dell, Navy; Charles Coniff, Army; Joseph Ansbury, Navy; Thomas Boylan, Army; Walter Gordon, Navy; Robert C. Lewsley, Army; Frank Tonkin, Navy; Hugh Malloy, Navy; Thomas Kearney, Army; John Bateman, Army; Gerald McCawley, Army; George Morgan, Army, Joseph Gettsy, Army; and Robert Dennis, Army.

The following letter, dated "Carbondale, Pa Sept 22 - 1983," was sent to the *Carbondale News*: "Sir In reference to Mr. Powell's article about the stolen not missing Sun Dial. The Sun Dial was not on Main St across from the D&H offices. It was located about midway between the lower of the two offices now the Ben Mar and the one story office of the old Scranton Water Co. office then In charge of Mr J. B. Shannon and Ray Secocaer. The next building was a large building called the Rope Barn or Rope House, located where the North High Rise is now. There was indeed a path in place then, it started directly behind the Dial which was set between the sidewalk and curb stone and ran back over a knoll between two sections of lawn and a set of tracks that ran about behind the Row Gas station that is now located there. The track crossed the path and went down pass the water co office and Rope Barn, over the bridge at John St pass the Hose house and in near the river when you crossed that knoll there was flat eras where some of the D&H Shops were located. The boiler Room was on the left side of the path a short distance above that the D&H paint shop was next. A Mr. Blocksidge and his son Maurice and others took care of that next was a very large shop called the coach and carpenter shop including a shop for the repair of Rail Road car air brakes I believe a Mr Dan Davis was foreman, then across one set of tracks the old stone shop some of which is still in place located a man named Harry Sanler and his helper pressed the car wheels on the axels in the first part; a black smith shop was next than there was a plumbing shop an electric department and at the end of the shop the maintenance of way was located a Mr Loren Barhight was the foreman of that shop. There was a repair yard just above the O&W bridge then called Schusters yard where years later a larger number of D&H. locomotives were stored for awhile when they changed to Diesels. The D&H regular repair yard was located about three blocks above the steel bridge still there near what is now the Diesel Shop where the old ash pits used to be. The old car nocker or repair yard was right next to the river bank and Mr John Norris and Mr. John Howard was the foreman of that operation, where the real heavy repairs were made like wheels, couplers & end sills and such things. The wheel gang was a four man job. Once in awhile I was required to fill in when one of the gang was off for some reason or another believe it or not those pairs of wheels weighed anywheres from 12 or 13 up to 19 - 2,000 lbs to 2250 and 2550 for the 70 ton cars. I was the smallest one in the gang and I also packed journal boxes in the cars. Please excuse the writing I am over 85 now. Sir I believe Miss Edith Gardner's memory is slipping a little bit like another one of my few remaining friends. The Black Smith shop at the corner of Belmont & Canaan St. was owned by Nick Moon at least it was always called Nick Moons I remember the name of the two Black smiths Al Probst and a man named Mitchell. I used to take H. E. Ted Mays two horses there to get them shod when I

was a delivery boy for Mr May. If you behaved yourself while you waited you might get one of the Blacksmiths to make you a ring out of a horse shoe nail if they had the time. I don't know if Mr Nick Moon was the father or Uncle of the meat market Mr Moon or not. I remember the 2nd floor of Blacksmith shop was used as a paint shop by a Harry Spangenberg for painting wagons. Red Francis and his brother Kenneth both were apprentices at Wes Saunders shop. Please excuse writing I am now 87 plus." [Letter not signed, envelope no longer available; the original and a typescript of it were located by SRP in a box of D&H papers at the Historical Society in July 2008]

Johnson photo of D&H Office Building (two views):

OFFICE AT CARBONDALE,
DEL. & HUDSON CANAL CO.



This building was erected in 1859.

This is the building in which the Carbondale Public Library was housed when it was organized in 1874. The library occupied the southern half of the second floor of the building.

A portion of the 1859 D&H office building is seen at the right in this photograph. This building no longer stands. Shown in the center of this photograph is a portion of the D&H Shops, which were still under construction at the time this photograph was taken by Johnson in 1860.

Maplewood
Cemetery



Cupolas not yet installed on the
new Gravity Shops buildings

The Gravity Shops as seen from the trestle from Plane 28 to the foot of Plane No. 1. On the ground in front of the building on the left is the cupola that will ultimately be placed on the shop building in the center of the photograph. This photo, which was downloaded from the Internet, is there identified as a Johnson photograph, dated 1860. The string of coal cars that is seen in the photograph, running from lower left to upper right, appear at first glance to be in a trench. That is not the case. They appear that way because the photographer is standing on the high works from Plane 28 to the foot of No. 1. In the photo, we look down into the Gravity Shops area. The string of coal cars are on the ground level. There is no trench: note that there is no left side of the "trench."



Level
No. 28

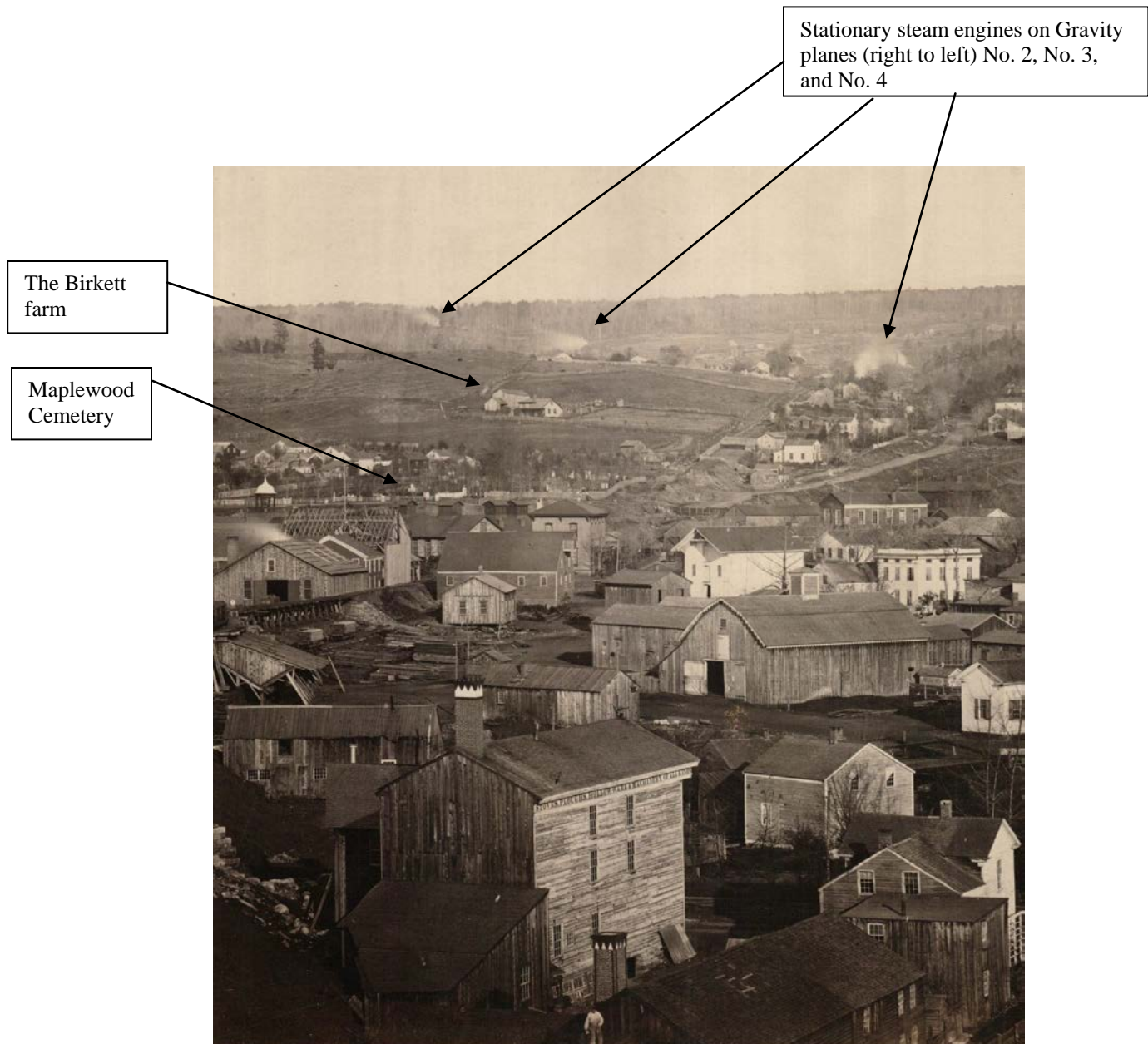
Photograph by Johnson of the D&H Gravity Shops buildings in Carbondale.

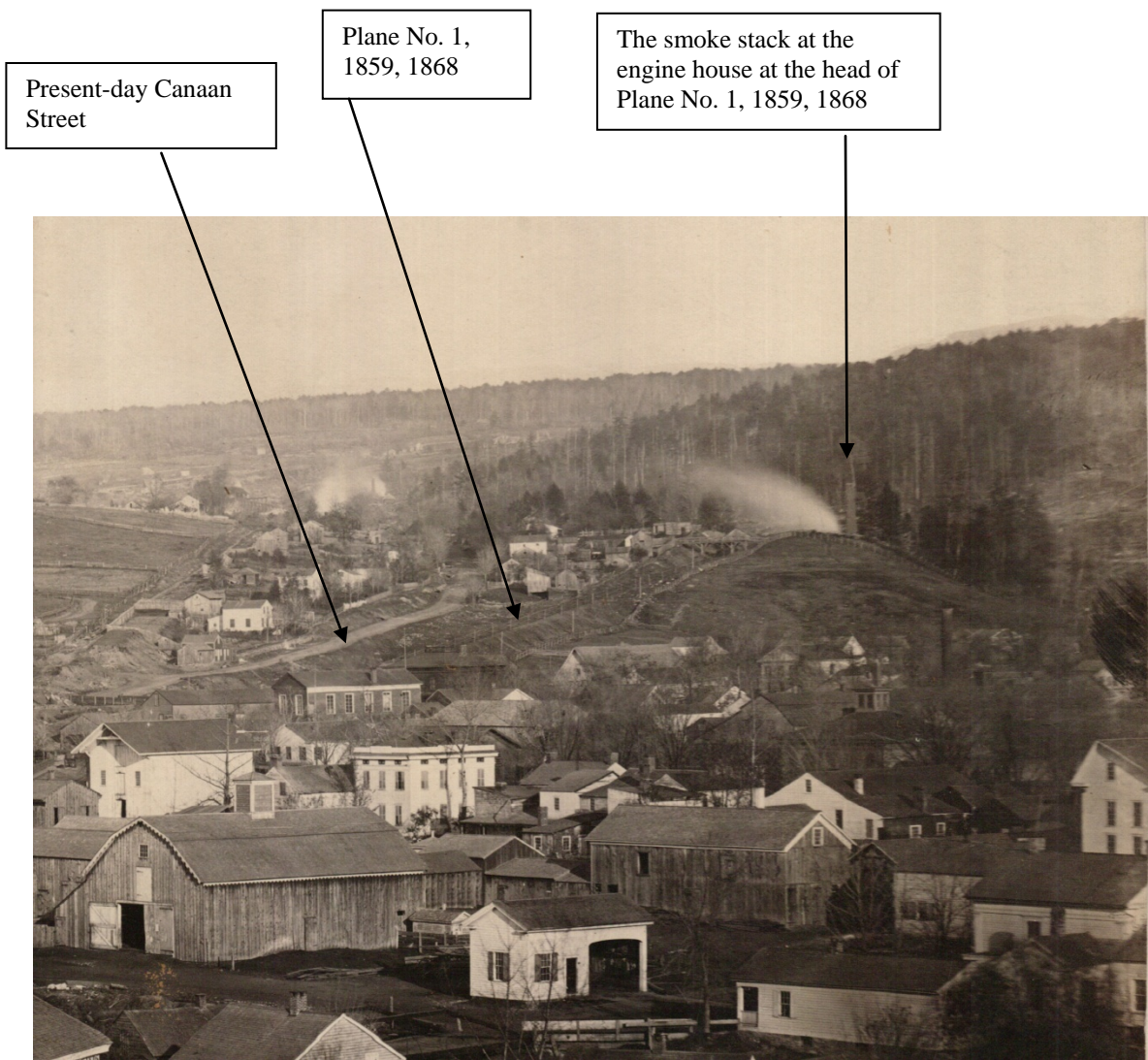
MACHINE SHOPS,
(CARBONDALE,)
DEL. & HUDSON CANAL CO.

James
Birkett's
Belmont
Cottage



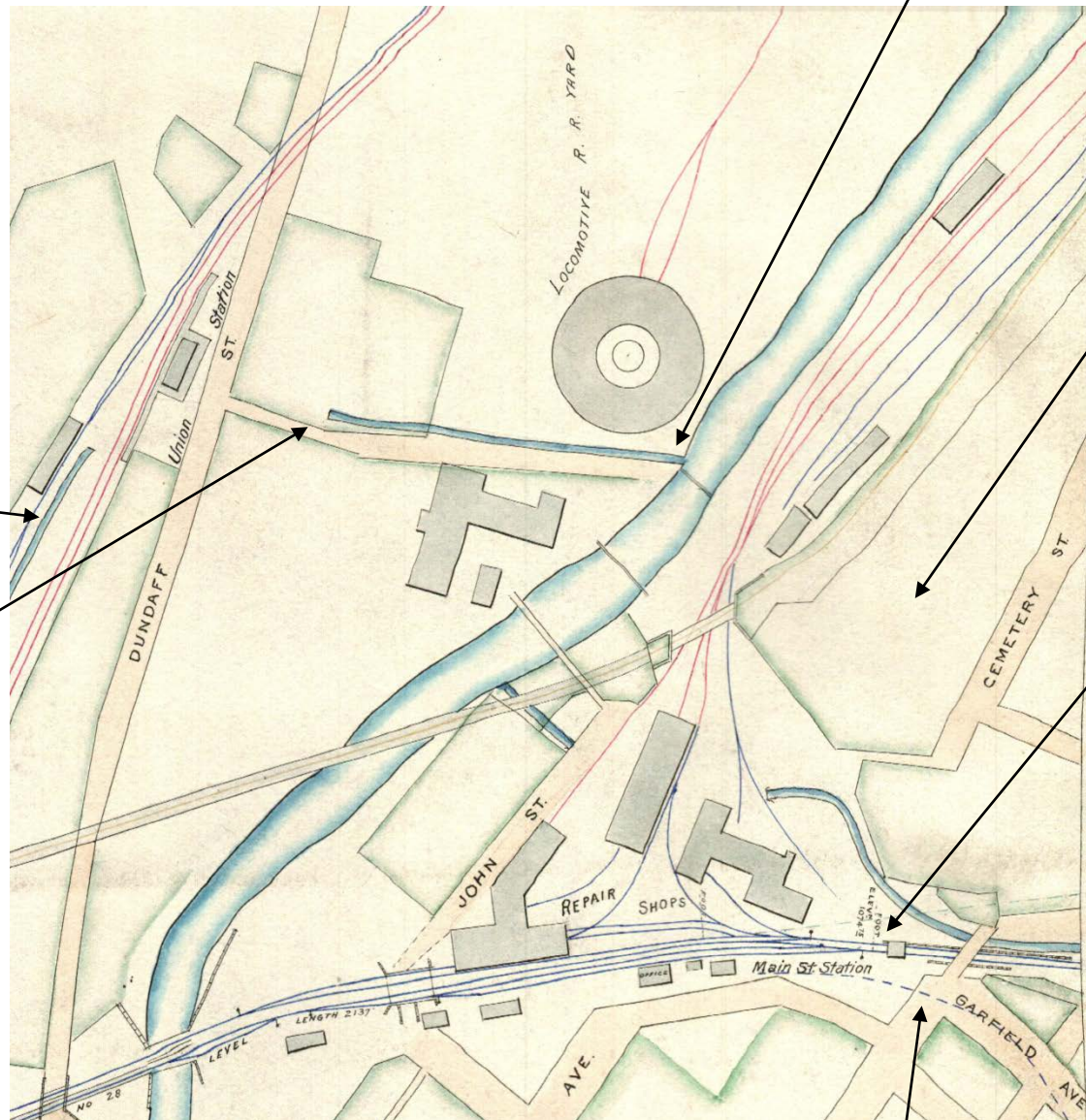
Photograph ("Carbondale, (Section 1,) / Del. and Hudson Canal Co.") by Johnson, Scranton, PA, 1860, of the downtown Carbondale area in the Gravity Shops and Plane No. 1 area (three views). Original in the archives of the Wayne County Historical Society.





1895 Gravity Railroad map

Gravity Shops; also showing Union Station on Dundaff Street, and the Main Street Station, across from the Gravity Shops:



The raceway from the Lackawanna River to the Carbondale canal

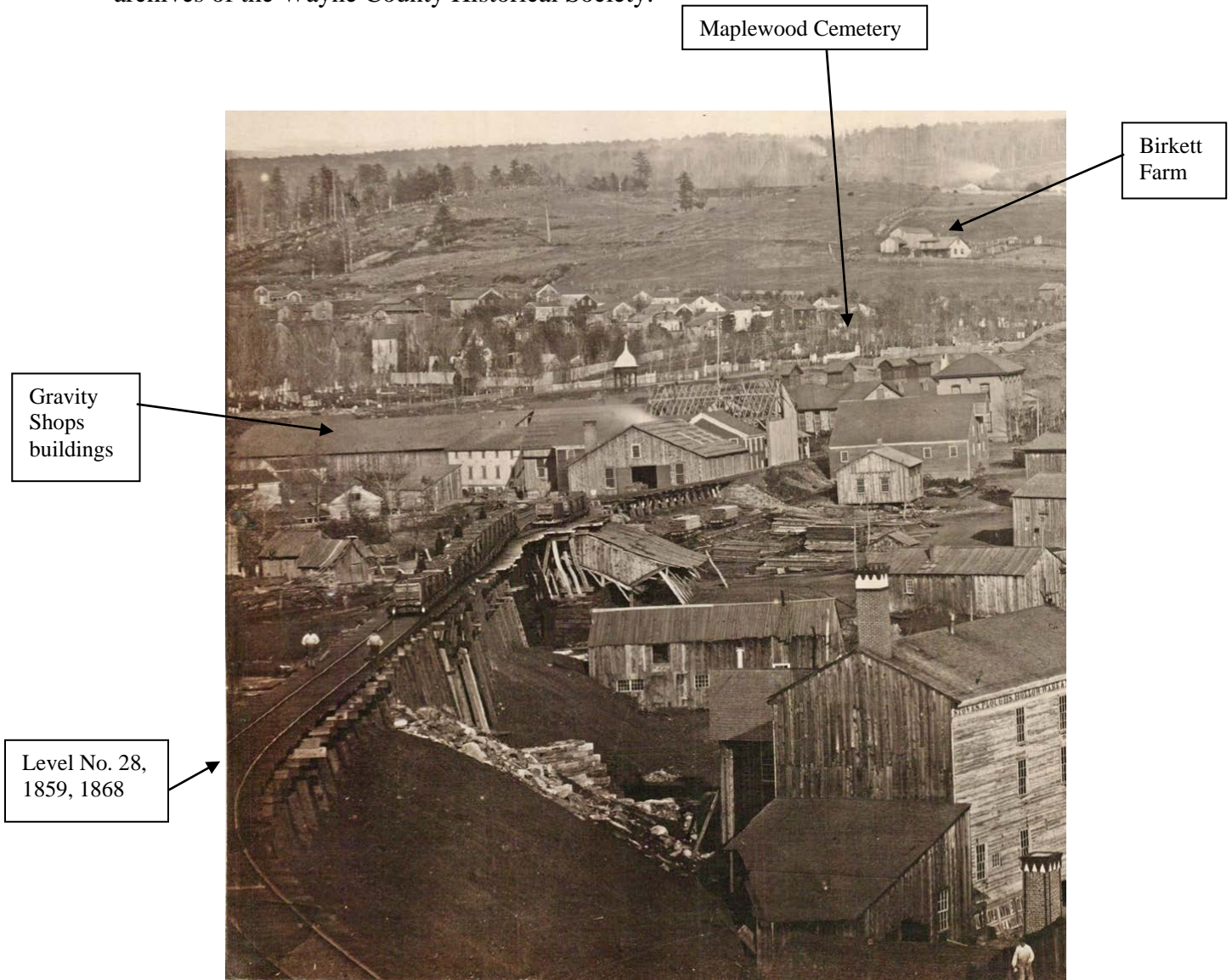
Maplewood Cemetery

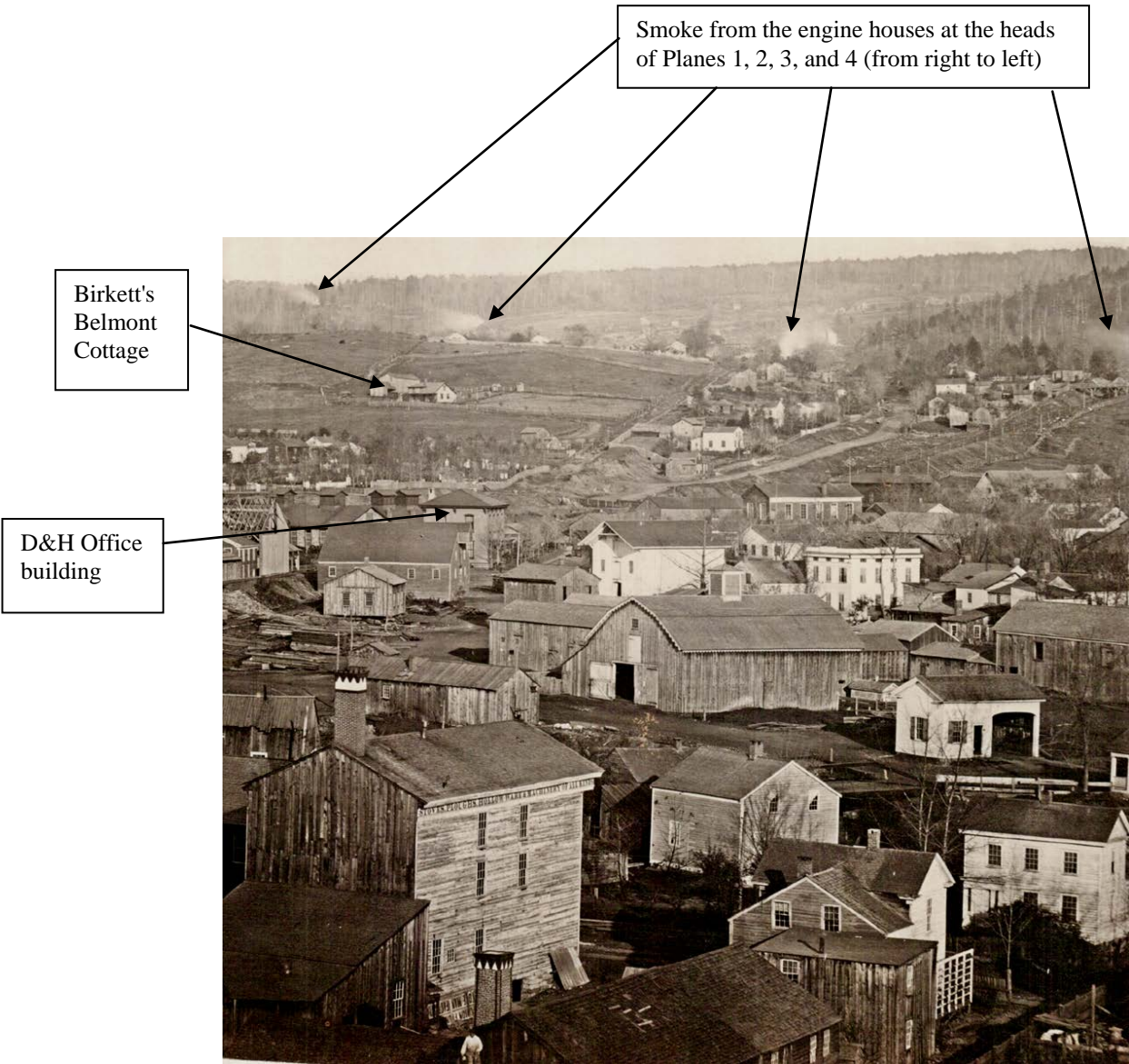
The foot of Plane No. 1, 1859, 1868

The beginning of the Blakely plane for light cars

The raceway went under the Van Bergen building, to re-emerge between the steam line tracks and the Gravity tracks

The Gravity Railroad operations in downtown Carbondale are seen in the three details given below from the photograph, titled “Carbondale, / (Section 1,) Del. and Hudson Canal Co.,” that was taken in 1860 by Johnson (Scranton, PA). The original print of this photograph is in the archives of the Wayne County Historical Society.





A closer look at Plane No. 1, 1859, 1868:



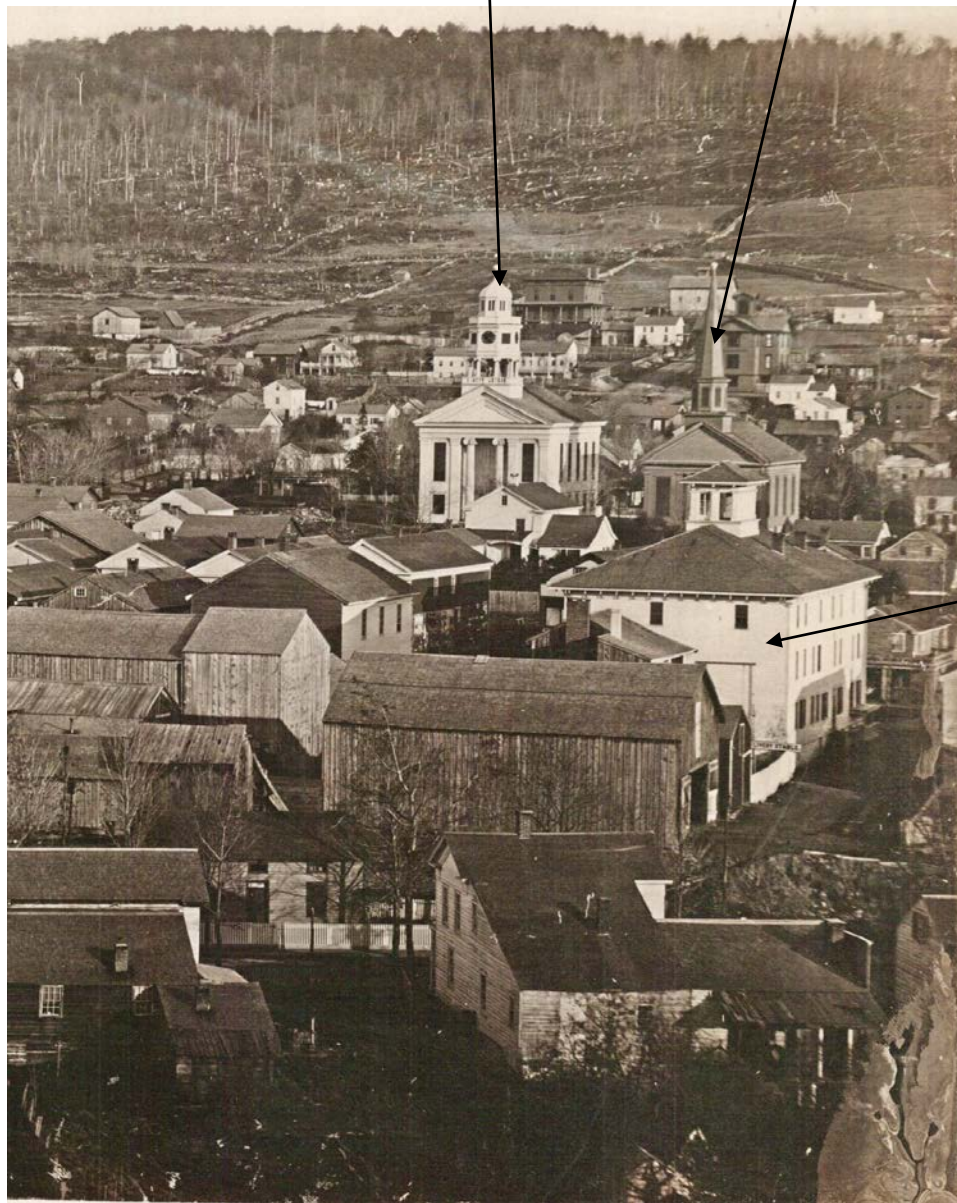
Additional general views of Carbondale were taken in 1860 by Johnson. Here is “Carbondale, / (Section 2,) / Del. and Hudson Canal Co.”



Here are two close ups from the above photograph:

The First United Methodist Church, the mother church of the Wyoming Conference. The building shown here was dedicated on May 1, 1850, with the morning sermon by Dr. Nathan Bangs and the evening sermon by William Reddy.

The Berean Baptist Church on North Church Street (on the site of the present parking lot beside the St. Rose rectory building). This Doric wooden church building was dedicated on November 29, 1859.

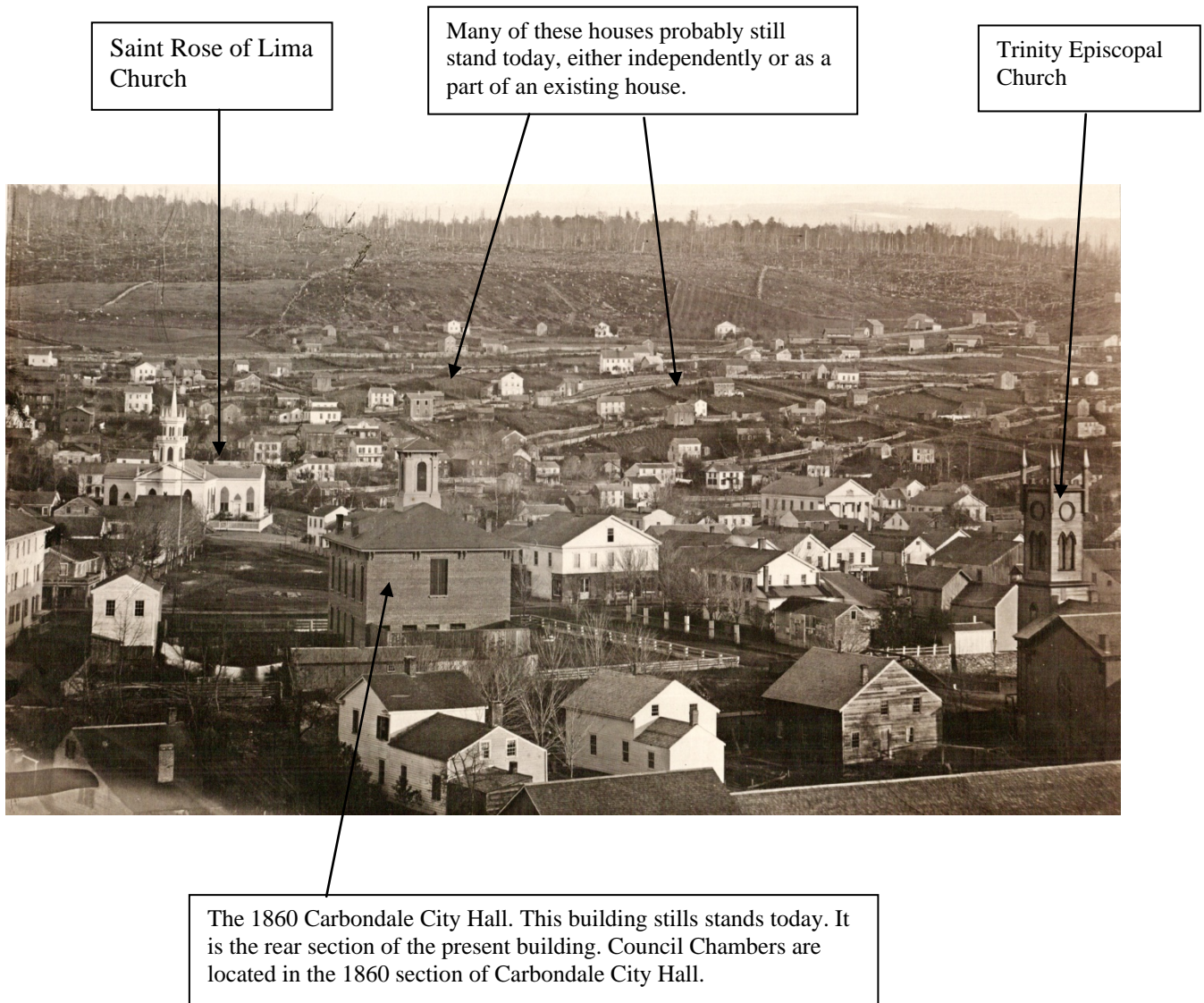
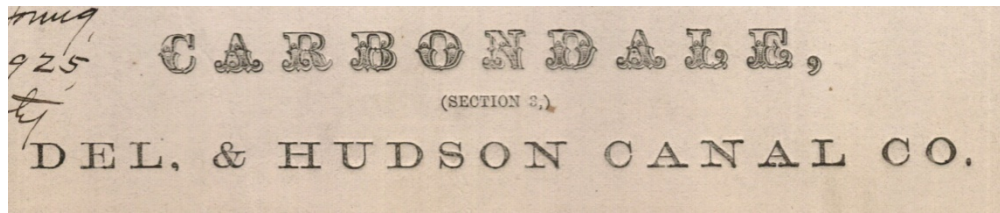


Carbondale
City Hall
(the first
building)

A closer look at the Methodist and Baptist churches:



And, finally, here is the third general view of Carbondale that was taken by Johnson in 1860:



Ed
OFFICE AT CARBONDALE,
DEL. & HUDSON CANAL CO.

(two details)



D&H Office building, Carbondale:

Note the two cupolas to be installed on the roofs of Gravity Shops buildings.

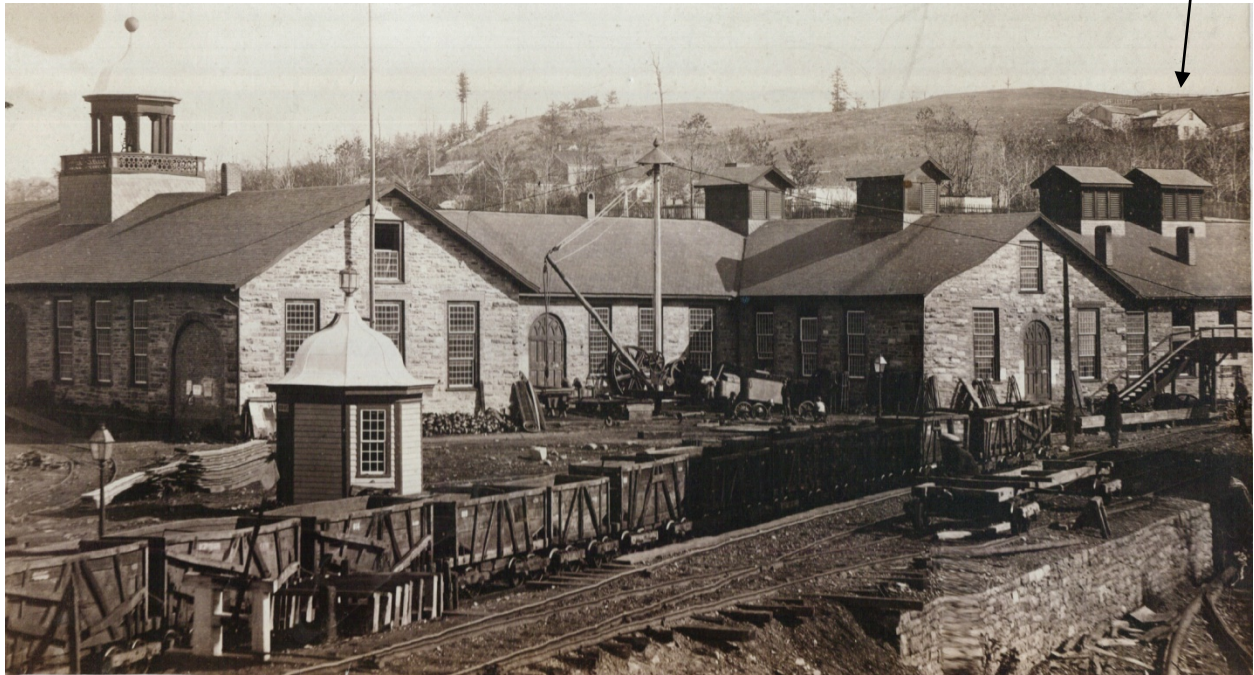


Maplewood Cemetery

Cupolas, to be installed on Gravity Shops buildings

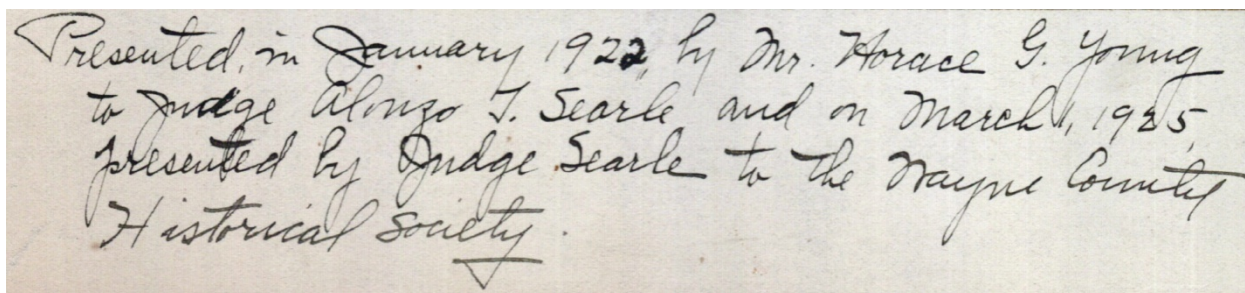
MACHINE SHOPS,
(CARBONDALE,
DEL. & HUDSON CANAL CO.

Birkett
farm



Level No. 28

All of these Johnson photographs are shown here courtesy of the Wayne County Historical Society, Honesdale. These photographs, which were given to the Wayne County Historical Society on March 1, 1925 by Judge Alonzo F. Searle, were originally owned by Horace G. Young. Written on the mat of each of these photographs is the following note:



Presented, in January 1922, by Mr. Horace G. Young
to Judge Alonzo F. Searle and on March 1, 1925
presented by Judge Searle to the Wayne County
Historical Society.

Horace G. Young was the son of Coe F. Young (named superintendent of the D&H Canal in 1864; appointed general superintendent of the D&H on March 1, 1869, an office he held until July 1885, when he resigned). In 1882, Horace G. Young was appointed Assistant General Manager; on September 30, 1885, he was appointed general manager to fill the vacancy created by the resignation of his father.

Horace G. Young: September 30, 1885, appointed General Manager of the D&H: son of Coe F. and Mary (Cornell) Young, civil engineer and graduate of Rensselaer Polytechnic Institute of Troy, NY. *Mathews*, pp. 250-51: "The Honesdale *Citizen*, speaking of this appointment, editorially says,--/ While there is a cordial recognition of the new officials' experience and proved ability as amply vindicating this appointment, it is not without a certain element of unexpectedness, due to the contrast in years between the appointee and his predecessor. To compare a civil engineer with a military career, it is much like the selection of the youthful Bonaparte to command the army of Italy; and it is not too much to predict that a further parallel will be found in successful results. The new general manager was born in Honesdale, January 26, 1854. After due preparation for college, he entered Rensselaer Polytechnic Institute, at Troy, N. Y. There he received a thorough scientific course, and was graduated with honor. In 1879 he entered the Delaware and Hudson service as assistant to the general manager. Here, bringing to the task the scientific acquirements gained at the Polytechnic, and with the valuable counsel of the general manager in their application to the work in hand, he rapidly mastered the complicated details of railroad and canal operations. In July, 1882, he was promoted to the position of assistant general manager, and took in special charge the Northern Railroad Department. This embraced the Albany and Susquehanna road, the New York and Canada, the Rensselaer and Saratoga, the Duaneburg and Schenectady, the Utica, Clinton and Binghamton, and the Cherry Valley Branch, with upward of six hundred miles of track; and of these roads he was practically the superintendent. In this position he proved himself a thoroughly

practical railroad manager, of unusual energy, judgment and administrative ability. His success in the direction of this department was fully appreciated by the Delaware and Hudson directory, and the most conclusive proof of a practical recognition of his merits is seen in his appointment to the position so long and so ably filled by his father. This confidence in his ability rests on a substantial basis, and in the brilliant career on which he has entered he has the best wishes of a host of friends.”

Shown below is a photo by Hensel (?) of the Gravity Shops area in Carbondale. An original print of this photograph is in the collection of the Carbondale Historical Society.



5928

Honesdale and the D&H in General at the Time of the 1859 Configuration

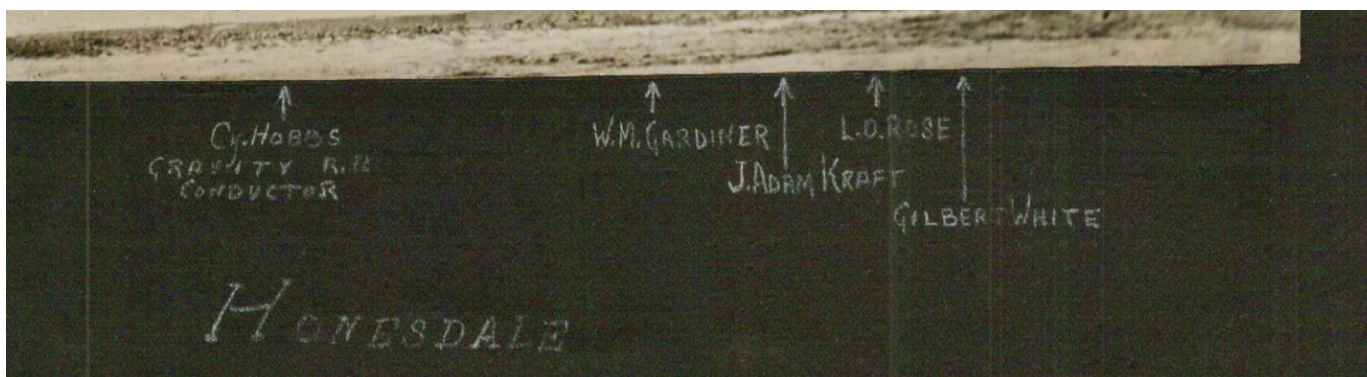
April 25, 1851: catastrophic fire in the village of Honesdale. Much of the town was destroyed. The fire is believed to have started in Murray's store on Front Street (now called Main Street). Much damage to the D&H canal docks, coal storage yards and loading equipment. Many canal boats in the basin, including the packet boats *Fashion* and *Daniel Webster* were destroyed.

1853: The Pennsylvania legislature extended the charter privileges of the D&H in perpetuity. (The charter privileges granted to Maurice Wurts in 1823 were to revert to the state in 30 years).

Shown on the following page is the "Del. & Hud. Canal Co." building on Main Street in Honesdale. The original of this photograph (with the names of the persons shown in the photograph written below the photograph on the scrap book page whereon the photo is mounted) is in the archives of the Pike County Historical Society, Milford, PA.

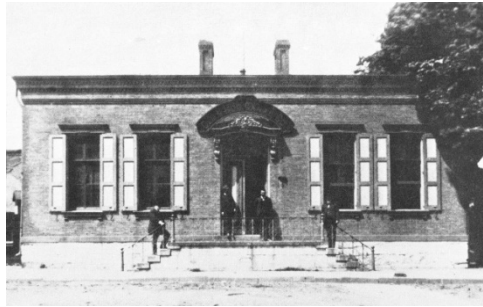


The five persons shown in this photograph, from left to right, are: "Cy Hobbs Gravity R. R. Conductor; W. M. Gardiner, J. Adam Kraft, L. O. Rose, and Gilbert White."



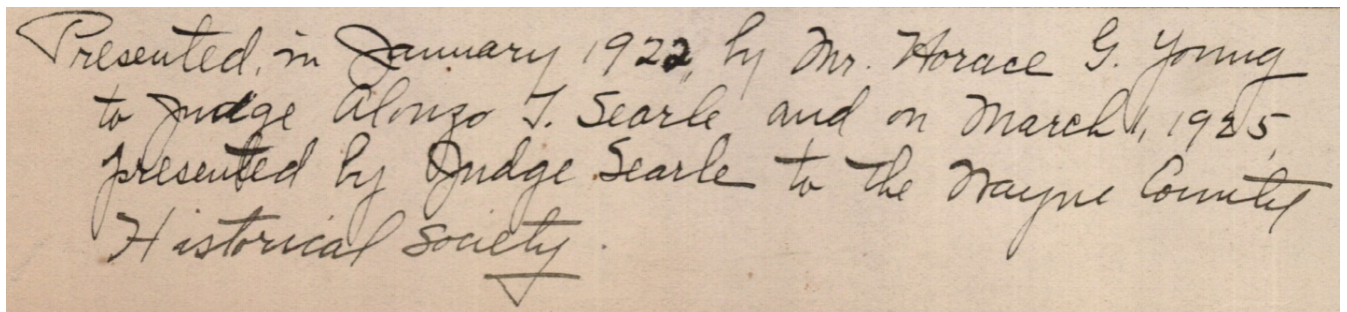
A photograph of this same view, with different folks lined up in front of the building, is published in Vernon Leslie's *Canal Town: Honesdale 1850-1875*, page ii. The caption on Leslie's photo reads: "Office of the Delaware & Hudson Canal Company, Honesdale, in 1884. L. to R., Coe F. Young, William Gardner, D. R. Atkinson, L. O. Rose. Built in 1860, this is now the headquarters of the Wayne County Historical Society. Picture credits: Wayne County Historical Society and Stanton Pratt." Gardner and Rose appear in both photographs.

Here is a thumbnail of the photo in *Leslie*, p. ii:



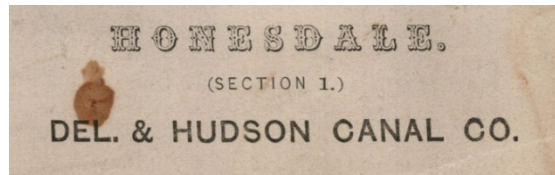
Shown below are four views by Johnson (Scranton, PA) of Honesdale. The originals of these photographs are in the collection of the Wayne County Historical Society, Honesdale. These photographs are shown here, courtesy of the Wayne County Historical Society.

These photographs, which were given to the Wayne County Historical Society on March 1, 1925 by Judge Alonzo F. Searle, were originally owned by Horace G. Young. Written on the mat of each of these photographs is the following note:



Presented, in January 1922, by Mr. Horace G. Young
to Judge Alonzo F. Searle and on March 1, 1925,
presented by Judge Searle to the Wayne County
Historical Society.

It is truly wonderful that Horace G. Young gave these photographs to Judge Alonzo F. Searle and that the judge presented them to the Wayne County Historical Society: very enlightened thinking by all concerned.



Baptist Church, corner of Church Street and Twelfth Street; church is presently alive and well.



Old Methodist Church. The "new" Central Methodist Church and parsonage stand on Church Street.

Plane No. 13

HONESDALE.
Section 2
DEL. & HUD. CANAL CO.
1860

The "first"
Court House in
Honesdale' built
in 1848

Stone jail

Pres-
byterian
Church



HONESDALE,
(SECTION 8.)
DEL. & HUDSON CANAL CO.

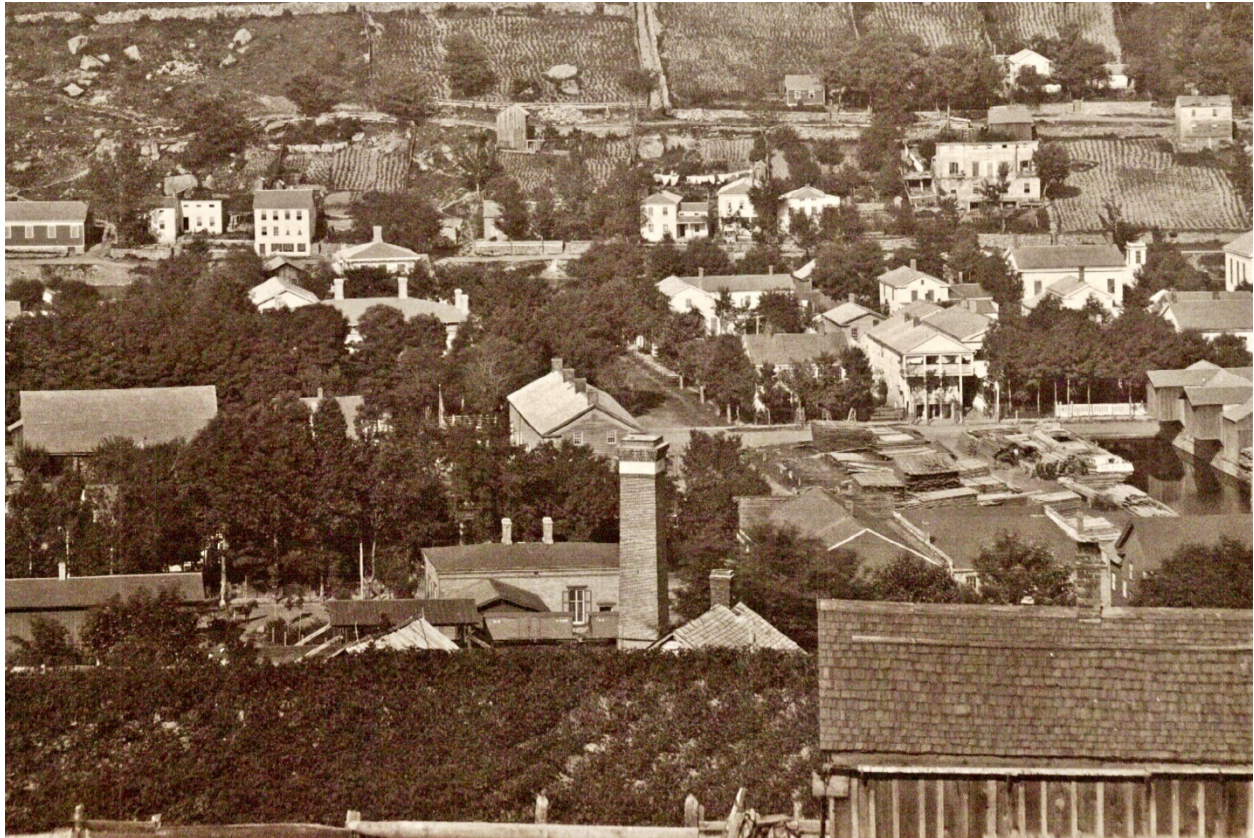
(two views)



Temple Beth Israel,
near the end of
Seventh Street

Smoke stack at engine
house on Plane 12 1/2

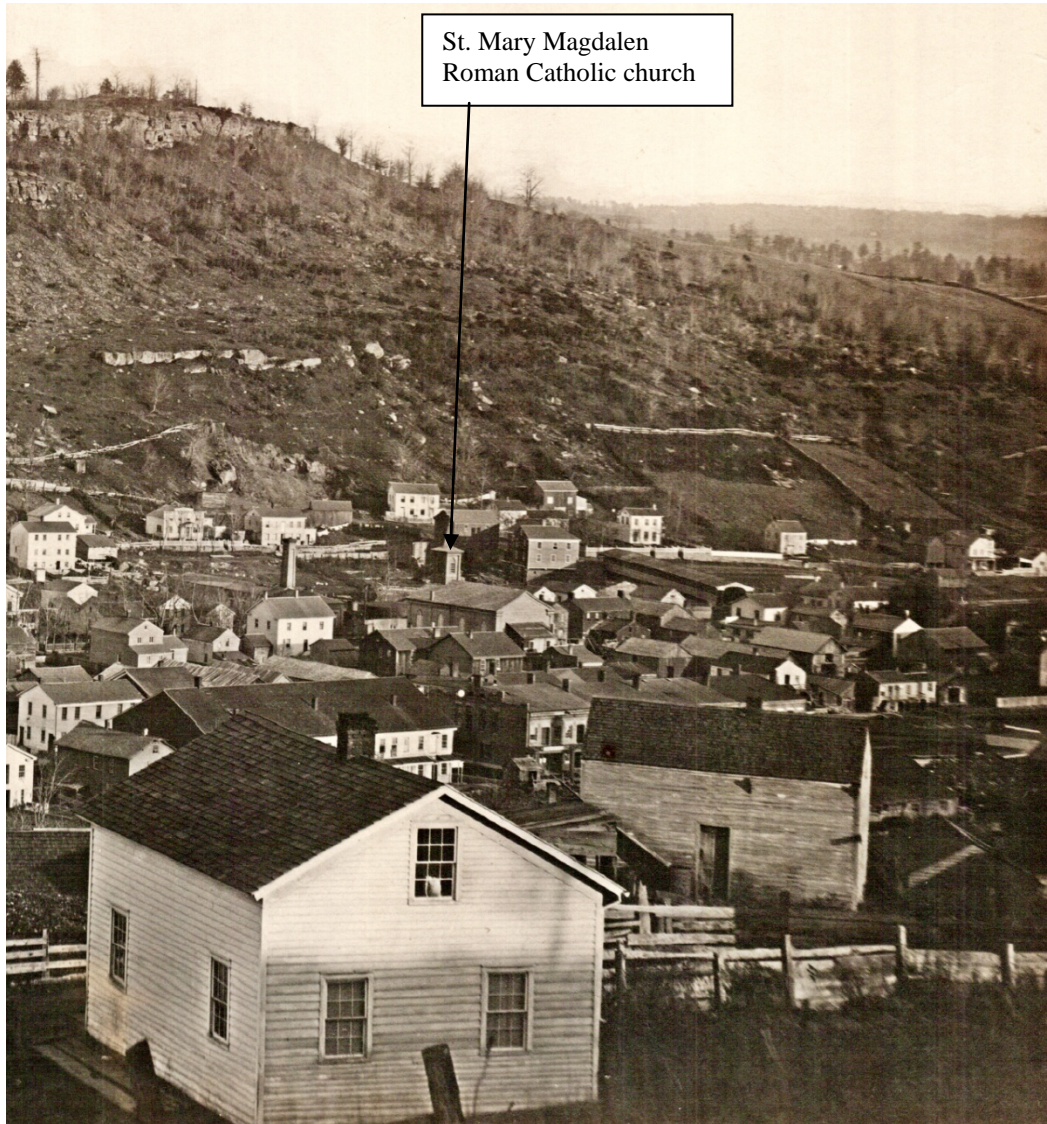
A closer look at the above photo detail:



The
boat
basin
across
Main
Street
from
the
D&H
canal
basin

MONESDALE,
(SECTION 4.)
DEL. & HUDSON CANAL CO.

(two views)





New D&H Collector's office, 1864:

“The Del. and Hudson Canal Co. have erected a new Collector’s Office, down town, near the canal bridge, and will shortly remove to it.—*Honesdale Dem.*” (*Carbondale Advance*, December 24, 1864, p.2)

Hollister on the period 1861-1865 (unpublished typescript, pp. 168-69):

"During the Boating Season of 1861 navigation was interrupted by freshets seven days, and by breaks six days. On the 13th of February 1861, an extraordinary ice flood occurred in the streams adjacent to the Canal, causing—in addition to other slighter injuries—a breach in the Dam of the Smith Hill Reservoir, near Honesdale; the damage thus occasioned amounted to \$25,000. /The season of 1862 opened with the lowest prices for coal ever known in the history of the trade. This state of things was attributed not to the falling off in the demand for coal 'but simply to the unfortunate, and we believe, mistaken policy of a rival Company.' (Managers Report 1862. / Although six weeks of navigation—or one-fourth of the whole boating season—were lost by repairing the broken canal and rebuilding the aqueduct crossing the Lackawaxen which was swept away the great June freshet of 1862, a larger quantity of coal than in previous years excepting 1861 was carried to market, readily sold and the Company was obliged to actually buy elsewhere to meet the wants of its customers during the period of suspended navigation. / At no time since the organization of the Company in 1825 did the profits on the capital stock show so flattering and [sic] exhibit as in 1864, when the Stockholders received 34 per cent profit. No freshets impaired the integrity of the canal and neither suspension or strike marred the harmony of steady, remunerating labor along the line. / "The demand for coal throughout the year was greater than the producing and transporting Companies had the power to supply; the prices consequently ruled very high. This state of things still continues, promising large returns, for the time, to those engaged in producing and bringing coal to market; but it should be borne in mind by the Stockholders that high prices will necessarily lead to the creation of new channals [sic] of supply, and that our profits cannot therefore be expected to continued long above their average level." (Managers Report). / No one residing or having business relations in the Lackawanna Valley in 1863-5, can forget the quickened industry, the animation and thrift and general affluence of the time, made so by the unexpected demand for coal by Government and private parties."

Civil War Excursus

The level of involvement in the Civil War among the men of Carbondale, both in the militia and in the Federal units, was high.

The militia units were mustered by the states; the regulars were raised by the Federal government. In the time of war, the Federal government claimed control of all forces.

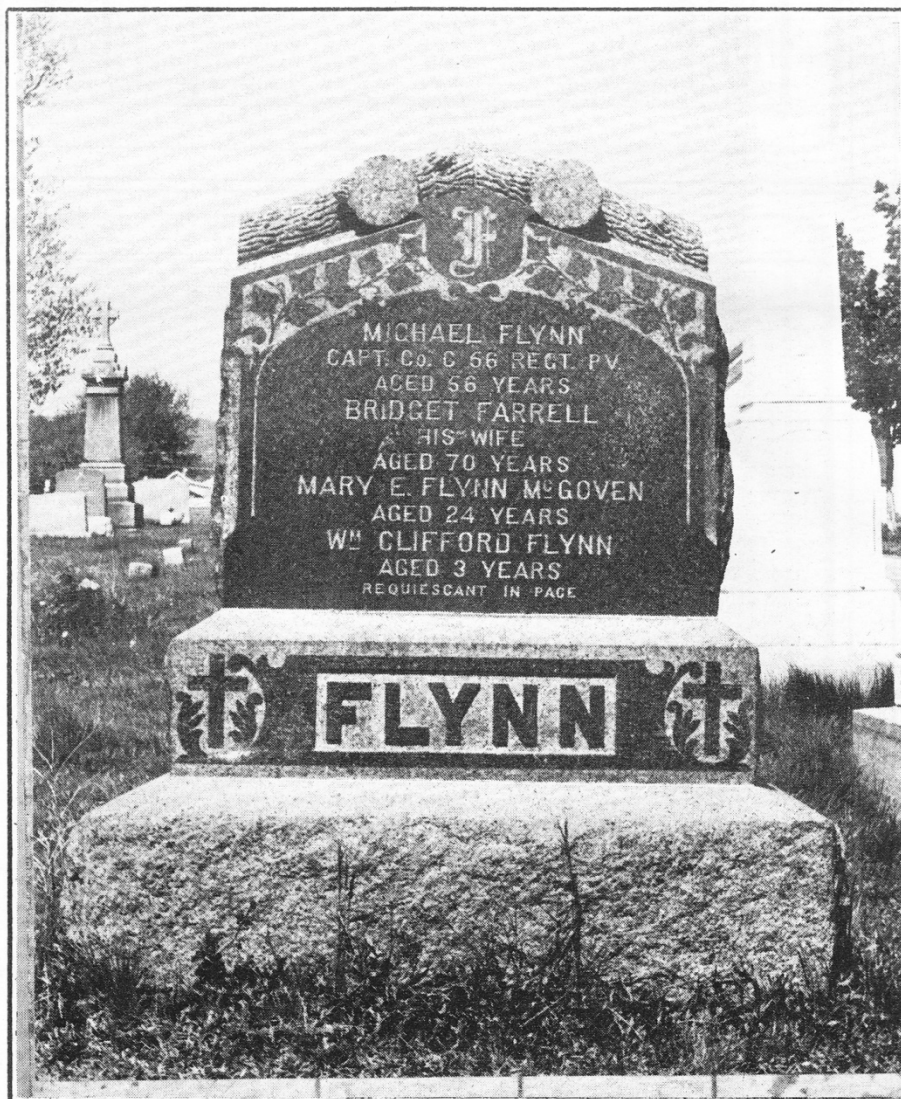
"Since the Revolutionary War, Americans had gone to battle in two columns: the regulars and the militia. The former considered themselves superior in training and discipline, the latter in courage and initiative. There was something to each stereotype yet more to the fact that the regulars were raised by the national government while the militia were mustered by the states. In wartime the national government claimed command of all forces. . ." (*Andrew Jackson His Life and Times* by H. W. Brands. Doubleday, 2005, p. 183)

Captain Michael Flynn, a Carbondale native, ordered the first shot fired at Battle of Gettysburg:



Picture of Capt. Michael Flynn (ordered first shot fired at Battle of Gettysburg. Ambrotype on deep purple-red glass, by an unidentified American photographer, possibly one from north-eastern Pennsylvania; collection of Carbondale Public Library, Carbondale, PA; copy print by Donald W. Powell. Image, 2" X 2 3/8", contained in a hinged case (now detached), each wing of case 2 3/8" X 2 7/8". Surface of image hand painted in two different colors: orange-yellow (buttons) and light rose (stripes on collar and sleeve, edging on front of jacket). The sword hilt, to the lower left of Captain Flynn's hands, is handcolored with a combination of the same orange-yellow and light rose. The painted studio landscape behind Captain Flynn shows, on the left, a church or castle on a hill (looking for all the world like the Chateau de Chillon on Lac Lemane) and on the right, four pine trees by a lake. The identity of the sitter in this ambrotype is known from the hand written information (underlined title above) on the index card which was folded around the image when it was donated to the Carbondale Public Library by Mary Thomas, Carbondale, on the occasion of the Bicentennial celebrations in 1976. A photograph of Captain Flynn's tombstone in Saint Rose Cemetery, Pearl Street, Carbondale, PA, is given in this issue of NORTHEASTERN PENNSYLVANIA on page 20, column 2. The name of Captain Flynn is given in the list of Civil War veterans interred in the New Catholic Cemetery (Saint Rose Cemetery, Pearl Street) in Carbondale, PA, that is given in this issue of NORTHEASTERN PENNSYLVANIA on page 25, column 3.

Northeastern Pennsylvania, Volume III, Number 1, August 19, 1981, p. 20



Tombstone of Captain Michael Flynn. Saint Rose Cemetery (formerly called New Catholic Cemetery), Pearl Street, Carbondale, PA; photograph taken by Donald W. Powell in June, 1981. The inscription on the tombstone reads as follows: "MICHAEL FLYNN / CAPT. CO. C 56 REGT. PV. / AGED 56 YEARS / BRIDGET FARRELL / HIS WIFE / AGED 70 YEARS / MARY E. FLYNN MCGOVEN / AGED 24 YEARS / WM CLIFFORD FLYNN / AGED 3 YEARS / REQUIESCENT IN PACE. / FLYNN" Captain Flynn's portrait appears on the front page of this issue of NORTH-EASTERN PENNSYLVANIA; his name is included among the soldier dead in the list of Carbondale soldiers that was published in The Carbondale Advance (Volume XXVIII, Number 52, Saturday morning, May 16, 1885, page 3, column 6)--that list is reproduced in the present issue of this historical quarterly on pages 25-26.

The Wurts Guards

Largely through the initiative of Charles Pemberton Wurts, the Wurts Guards was established.

“Startling News. / The news for the past few days has been most exciting. Early in the week, the Governor’s order was received, requesting our entire militia force to organize into companies and drill daily, after three o’clock. / In obedience to this, work has been suspended here and drilling commenced daily at four o’clock. / One company, called the Wurts Guards,’ raised largely through the active agency of C. P. Wurts, Esq., was formed, over one hundred strong. Another was raised over fifty strong. On Friday morning, the urgent call of the Governor for 50,000 of these men to assemble at Harrisburg within twenty-four hours was received. The ‘Wurts Guards,’ with the exception of a few, unable from bad health, or that positively could not leave, determined to go at once. / The name of MR WURTS, our railroad Superintendent, was enrolled among the privates, and his heart seemed fully set upon the service. He was induced to forego his conviction to duty at the urgent request of the men in his employment that were going, to remain at home for their sake and keep their places open for them on their return. / It seems highly probable that Luzerne will send forward a full regiment for the defense of the State as early as Monday.” (*Carbondale Advance*, September 13, 1862, p.3)

The Luzerne Artillerists

Another Carbondale state militia company, the Luzerne Artillerists, was formed, with P. C. Gritman as Captain. This militia unit was born at a meeting of the Carbondale Democratic Union Club that took place on Friday evening, September 5, 1862, at Carbondale City Hall. This we know from the newspaper clipping, shown below, that was pasted onto the face of the Luzerne Artillerists broadsheet that is given on page 256.

At a meeting of the “Carbondale Democratic Union Club,” held in City Hall, Friday evening, Sept. 5th, 1862, the following among other proceedings were had:

Whereas, The Governor by proclamation has recommended to all citizens of this State the immediate formation of volunteer companies under the act of 1858, for the better defence of the State &c.; therefore,

Resolved, That we concur in the recommendation of the Governor, and would earnestly request all loyal citizens of this city to enrol themselves at once; in the formation of one or more companies under said proclamation.

Resolved, That P. C. Gritman be requested to prepare rolls and superintend the enrolling of all such as wish to volunteer in forming the above companies.

Resolved, That the above be published in Carbondale Advance.

I. D. RICHARDS, Sec. of Club.

All persons wishing to enroll themselves as above, will find rolls prepared to receive names at the office of P. C. Gritman, Col. P. Byrne, I. D. Richards, D. Prendergast, J. Nealon, M. Barker and Capt. Wm. Brennan.

Attention!

Luzerne Artillerists

THIS DAY

IMPORTANT BUSINESS

**At 7 o'clock, P. M., a Meeting will
be held in the City Hall.**

At the meeting of the "Chicago Club" held at the Madison Hotel, Union City, N.J., on 12 May 1898, the following among other persons were laid:

Weyerhaeuser, The Governor by producing this was recommended to all citizens of the State to read and to be prepared to answer questions asked under the act of 1898.

For the better address of the State see the *Record*, that he consent in the re-examination of the Governor and resolution of the Senate to be read to all citizens in the formation of one or more companies under said proclamation.

McCormick, C. C. Griffiths be requested to prepare roll and implementation of the roll and to be read to all citizens in the formation of one or more companies under said proclamation.

That the above be published in the *Chicago Tribune*.

All persons willing to enroll them as above, will find roll ready to receive at C. D. Barry and D. D. Roberts.

D. D. Roberts, J. N. Nolan, M. E. Foster and J. W. Brennan.

256

‘Luzerne Artillorists’ / This company is, we believe, about 50 strong. The officers are P. C. Gritman, Captain; James A. Brennan, 1st Lieut.; Andrew Simpson, 2d Lieut.; Thomas Coogan, 3d Lieut.; I. D. Richards, 1st Sergeant.” (*Carbondale Advance*, September 13, 1862, p.3)

The Wurts Guards depart for the seat of war:

“ **‘Wurts Guards.’** / This company numbers nearly 100 and have reported to the Governor ready for service. They will go on Monday morning if requested. The officers are James Nicol Captain; James Hosie 1st Lieutenant; Alfred S. Wurts 2nd Lieut. We will give the non-commissioned officers and privates next week if possible. / LATER--MONDAY MORNING. / The Company received ‘Marching Orders’ from Gov. Curtin at one o’clock on Sunday afternoon, and in 12 hours, at one o’clock this morning, left for the seat of war. They were well equipped and supplied with the exception of arms and ammunition, which could not possibly be obtained here. A finer body of men, and one containing more of character, attainments and patriotism, we believe cannot be found in the service. A large share of them are men from our most lucrative positions. Among them are Civil Engineers, Motive Power Engineers, Merchants, Contractors, Lawyers, and leading men in nearly all our trades and professions. The Company assembled at Richmond’s Hall at 6 ½ o’clock, and listened to patriotic addresses from Rev. B. H. Abbott and others. The absence of the members of this Company will be much felt in our community. They will have the best hopes and wishes of our citizens for their complete success and early and safe return.” (*Carbondale Advance*, September 13, 1862, p.3)

The Luzerne Artillerists depart for camp:

“**The ‘Luzerne Artillerists.’** / This company, the second of State militia raised in our town, left for camp on Thursday morning. We have not yet received the muster roll of the company, but have hopes of receiving it in season for this issue.” (*Carbondale Advance*, September 20, 1862, p. 3)

The Wurts Guards are missed at home:

“**‘Missed at Home.’** / The Wurts’ Guards Boys are badly missed at home. They leave much regretted vacancies in business circles and home circles.” (*Carbondale Advance*, September 20, 1862, p. 3)

The Clifford Guards will pass through Carbondale on their way to camp:

“**THE CLIFFORD GUARDS**, Capt. H. S. Phinney, expect to pass through here on Sunday, on their way to camp.” (*Carbondale Advance*, September 20, 1862, p.3)

Letter from a member of the Wurts Guards, George W. Benedict, possibly a son or nephew of the editors of the *Carbondale Advance*, E. A. & G. W. Benedict:

“**LETTER FROM THE JUNIOR.** / *Camp of Wurts’ Guards, Capital Grounds*, Harrisburg, Sept. 17--7 ½ a.m. / Dear Folks:--Another day has passed and we are still in Harrisburg. We had expected to have been nearer the seat of war ere this time. We were drilled about an hour yesterday forenoon, and then marched to the Arsenal, where, after waiting in line for over an hour, we were furnished with muskets, knapsacks and haversacks. We have not yet received the cartridge-boxes, &c., but shall probably get them this morning. The muskets are mostly of the old Harper’s Ferry pattern, refitted. We have not yet drilled with our arms. I was on guard duty four hours last night from 10 to 12, and from 4 to 6, and during that time might have been seen treading my beat, with my fine musket on my shoulder, with its glistening bayonet, guarding the tents of our Company. During the first hour, the camp re-echoed with the shouts and singing of the soldiers, who are all in the best of spirits. Then the music gradually died away, until naught was heard but one lone voice swelling the notes of, / ‘Do they miss me at home,’ / and finally all was still, except now and then the snore of some weary patriot, who seemed to make hard work of partaking of exhausted nature’s sweet restorer, balmy sleep. During the last two hours, a drizzling rain set in, and I found the borrowed Wide Awake cape very comfortable. Thanks to the owner. I found guard duty rather pleasant, and like camp-life generally very much; in fact we are all enjoying ourselves hugely. / You can have no idea of the number and class of men here. When we came here there was but about one Company on the Capital grounds, and now it is

completely crowded, and it is said every spare building and vacant spot in the city is now occupied with troops, altho' they are sent off as fast as possible. Six Regiments were sent from here yesterday and several passed through for Chambersburg from Philadelphia without stopping. The most of the troops appear to be first class boys, and there is said to be some very wealthy men. The rush of Pennsylvanians to arms will be the wonder of the world. Gov. Curtin tells us he does not think we will have a chance to see battle, but he says he will at least give us a pleasure trip to the Cumberland Valley. Must go to drill. / *Later.*—Have just received orders to march. Leave at 3. Don't know where we are going. Will write and send address as soon as possible. / Yours, &c., GEO. W. BENEDICT." (*Carbondale Advance*, September 20, 1862, p.3)

"The Wurts' Guards. / This Company has been armed and equipped at Harrisburg, and left camp there on Wednesday afternoon at three o'clock, for the border, *via* Chambersburg. . . " [officers and complete muster roll then given, and corrected in the issue of the *Carbondale Advance* that was published the following week, September 27 (p. 3); in the October 4, 1862 issue of the *Carbondale Advance* (p.3) was published a corrected and complete copy of the membership of the Wurts Guards, as provided by Captain Nicol. That membership list is given below. The Wurts Guards returned to Carbondale on September 26, 1862, and their arrival home was chronicled in an article in the September 27, 1862 issue of the *Carbondale Advance* (p. 3). That article is given hereafter:

"The Welcome. / The 'Wurts Guards,' Capt. James Nicol, arrived home at noon yesterday. They were met at the Depot by the 'Carbondale Zouaves,' Capt. James A. Brennan, who had arrived from Camp unexpectedly to us as to the time, on Tuesday. Both companies formed at the depot, and preceded by the 'Silver Greys,' citizens, martial music, and Missett's Brass Band, marched through the principal streets in fine style, and both companies were greeted with a most hearty 'Welcome Home.' / Hon. J. M. Poor met them at Scranton, and having been attentive to their wants in camp, he also arranged for a most gratifying reception on their return. / At Dr. Ottman's residence one of the choirs, during a brief halt, sang the appropriate song 'Rally around the Flag, Boys,' executing it in fine style. At our residence about two dozen young ladies assembled, and from the porch, threw a shower of the most beautiful bouquets among the officers and soldiers of the two companies. After marching to Richmond's Hall on Main Street they dispersed to their homes." (*Carbondale Advance*, September 27, 1862, p. 3)

Another Carbondale militia unit, the Carbondale Zouaves:

"Carbondale Zouaves. / We give this week the Muster Roll of the Carbondale Zouaves as prepared after their arrival in Camp by the officers of the Company. / The Co., is well officered, with a Captain of whom any Co., might be proud, and so far as we are acquainted with the boys, they are brave fellows. We observe in the list three teachers in our Public Schools. / The Company were discharged on Monday, and reached their homes here on Tuesday. No public information reached here of the time they were to arrive, hence no arrangements were made for a reception. But they marched thro' the principal streets in good style and were greeted with enthusiasm. / The following are the names of the officers and members belonging to the 'Carbondale Zouaves.'

JAS. A. BRENNAN, Captain.
 THOS. COOGAN, Ist Lieut.
 MICHAEL CONGHLIN, 2d Lieut.
 MARK DUFFY, Orderly Sergeant.
 PATRICK McGARRY, 2d Sergeant.
 JOHN WARD, 3d Sergeant.
 PATRICK BRIDGET, 4th Sergeant.
 JOHN KELLY, Commissary Sergeant.

Thomas Moony,	Joseph Farrell,
Charles McCabe	Joseph Missett,
Patrick Carroll,	Fred. Klutz,
Peter Flannelly,	John Brennan,
Martin Gererty	John Lyng Jr.,
Thomas Vankirk,	Lawrence Brennan,
Hugh McComb	Thos. Kilhool,
Thos. R. Flannery,	Abraham Wilson,
Michael Morrison,	Robert Sears,
Michael Gallagy	John Finan,
Edwd. Clarkson,	Michael McGowan,
Thos. Murry,	John Gallager,
Martin Malone	Daniel Boyle,
John Linnen,	Michael Duffy,
W. W. Niles	Patrick C. Dockerty,
Harvy Hayden,	John H. Barrett,
Patrick Gallager	Martin Early,
Thos. R. Barrett,	Jond [sic] Lynch,
John Morrisson,	Martin Barrett,
John H. Cawley,	David Henry,
John W. Burk,	Patrick Skifferton,
Michael Shanly,	Michael Shanly [sic],
Michael Kennedy	Thos. Higgins,
Edward Rees,	Henry Frady,
Jas. F. Brown,	Patrick Fahy,

Charles McFarland,

(*Carbondale Advance*, September 27, 1862, p. 3)

More about the original Zouaves:

The original Zouaves were native North African troops serving in the French Army in the 1830s. They wore distinctive uniforms. Their uniforms usually consisted of a fez and turban, very baggy pants, a vest, a short jacket that was cut away from the top with only one button or clasp at the throat, and a sash. They also wore leggings. The uniforms were usually brightly colored and had much trim and/or braid and many brass buttons on them.

Zouave was the title given to certain light infantry regiments in the French Army, normally serving in French North Africa between 1831 and 1962. The name was also adopted during the 19th century by units in other armies, especially volunteer regiments raised for service in the American Civil War. The chief distinguishing characteristics of such units were the Zouave uniform, which included short open-fronted jackets, baggy trousers and often sashes and oriental headgear.

Numerous Zouave regiments were organized from soldiers of the United States of America who adopted the name and the North African-inspired uniforms during the American Civil War. The Union army had more than 70 volunteer Zouave regiments throughout the conflict, while the Confederates fielded about 25 Zouave companies.

The Zouave uniform was sometimes quite elaborate, to the extent of being unwieldy. Some Zouave regiments wore a fez with a colored tassel (usually yellow, blue, green, or red) and turban, a tight fitting short jacket (some without buttons), a wide 10-foot-long (3.0 m) sash, baggy pantaloons or "chasseur" trousers, white leggings, and a short leather cuff for the calf, called jambieres

More on the Wurts Guards, including complete membership list, by the editors of the *Carbondale Advance*, E. A. and G. W. Benedict:

"A special meeting of the Wurts Guards was held at Richmond's Hall on Wednesday evening last, at which the following civil officers of the Co. were elected:--President, W. W. Lathrop; Secretary, H. Wilson; Treasurer, John S. Law. / A committee was appointed to draft Constitution, &c., for permanent organization. / A vote of thanks was tendered to ex-Mayor J. M. Poor, Q. M. Sgt. H. Chapman, E. Howells, J. S. Law and J. Kirkbride, for their untiring labors for the comfort of the Co. while in camp. / The meeting was then adjourned, to meet at the same place on Tuesday evening next. / We have been furnished by Capt. Nicol, with the following corrected and complete copy of the organization of the 13th Reg. P. M. and of the Wurts Guards, Co. C. / Organization of the 13th Regt. of Pa. Militia, Sept. 15th, 1862. /

FIELD OFFICERS: /

Colonel—James Johnson, of Philadelphia.
Lieutenant Colonel—J. F. Means, of Bradford Co.
Major—S. H. Newman, of Bradford Co.
Surgeon—Wm. F. Ruber, of Bradford Co.
Ass't Surgeon—J. M. Vandersloot, of Bradford Co.
Adjutant—J. M. Chamberlain, of Columbia Co.
Quartermaster—J. McKelvy, of Columbia Co.
Quartermaster Sergeant—L. S. Fuller, of Luzerne Co.
Sergeant Major—B. S. Powers, of Bradford Co.
Drum Major—B. Muslemand, of Montour Co.

POSITIONS OF COMPANIES:

Co. A—Capt. Winner, Danville, Montour Co.
Co. B—Capt. Potts, Catawissa, Columbia Co.
Co. C—Capt. Nicol, Carbondale, Luzerne Co.
Co. D—Capt. Clark, Bloomsburg, Columbia Co.
Co. E—Capt. Wilcox, Bloomsburg, Columbia Co.
Co. F—Capt. Goodrich, Towanda, Bradford Co.
Co. G—Capt. Gorhan, Towanda, Bradford Co.
Co. H—Capt. Evans, Towanda, Bradford Co.
Co. I—Capt. Langstaff, Scranton, Luzerne Co.
Co. K—Capt. Young, Bradford Co.

Names of Officers and Men of Co. C, 13th Regiment P.M., known as 'The Wurts Guards,' and *Color Co. of the Regiment*:

Captain—JAMES NICOL.
1st Lieutenant—James Hosie.
2nd Lieutenant—Albert S. Wurts.
Quartermaster Sergeant—Henry Chapman
1st Sergeant—Michael Dugan,
2nd Sergeant—Thomas R. Lathrop,
3rd Sergeant—William Nicol,
4th Sergeant—Henry Wilson,
5th Sergeant—Robert Doak,
Ist Corporal—James Wright,

2nd Corporal—Thomas Lindsay,
 3rd Corporal—William Karger,
 4th Corporal—Augustus S. Wurts,
 5th Corporal—Thomas Sullivan,
 6th Corporal—Conrad Fisher,
 7th Corporal—William Prudhoe,
 8th Corporal—Henry B. Jadwin, Jr.,
 Drummer—E. W. Jadwin.

PRIVATES.

Allen James	Law John S.
Bagley J. H.	Leusley Thomas
Baker Sam'l D.	Maxwell John
Barker Chas. W.	McLaughlin James
Barrett T. S.	McLean John
Benedict George W.	McMillen James
Brown Wm.	Mellen Chas. O.
Cameron Angus, Jr.	Mills John E.
Campbell Ager	Moses William
Campbell Loftus	Moore Oscar C.
Campbell William	O'Rourke Lawrence
Campman Bernard	Peck Joseph H.
Chamberlain M. J.	Pettigrew John
Cramer N. P.	Poor Townsend
Crane S. H.	Parker Samuel G.
Daley, Charles H.	Powderly John
Dann, F. H.	Powderly Hugh
Davis E. Y.	Race Chas.
Decker John	Rowe Chas
Evans Thomas	Reese William
Farnham Clarence	Ridley Wm., Jr.
Ficheneher Frederick	Richmond J. E.
Goebel Frederick	Samuels Thos.
Goebel William	Scurry Daniel
Gathercole D. W.	Sherwin John
Geisler John	Sigel Frederick

Godding Luther R.	Smith George W.
Haris John	Smith Nicholas
Holland Robert	Stephens D. M.
Honold Christian	Stone Geo. T.
Hunter William	Swarts Henry J.
Howells Edward	Taylor John L.
Hurley Thomas Jr.	Taylor, John
Hurley Robert E.	Ulmer John
Haigh Thomas	Ulmer David
Holford L. W.	Vannan Jos. B.
Isgar Joseph*	Vannan Thos B.
Johnson George	Wedeman John D.
Jordan Marwood	Williams Samuel
Joslin E. F.	Wilson John H.
Kenworthy Wm.	Wurts T. F.
Kirdbride Jos. F.	Yarns Asa
Kirkwood James	Yarns Wm.
Lathrop Wm. W.	

(*Carbondale Advance*, October 4, 1862, p. 3)

- * "JOSEPH ISGER, formerly in the employ of the D. & H. Canal Company, but a foundryman since December, 1875, was born in England, in 1826, and married Janet Maudsley. He belonged to the "Wurts Guards," and accompanied the company as an 'emergency man.' He came to Carbondale in 1861."

Favorable comments all around for the Wurts Guards:

"As most of our readers are aware one of our companies, (Capt. Nicol) from our City was the color company of the 13th Regt., so favorably noticed in the *Philadelphia Inquirer*, which we give below: / 'Professor McCoy delivered a beautiful and appropriate address to the Thirteenth Regiment Pennsylvania Militia, Col. Johnson, this morning, on Capitol Hill. This Regiment has just returned from the border, where it has distinguished itself by the superior discipline displayed.' / We have heard the unanimous sentiment of Co. C 13th Regiment Pa. Militia expressed, in praise of Henry Chapman of our city, who at a moments' [sic] notice, left his business and filled the important and laborious office of Quarter-master Sergeant to the

company. / While more or less confusion was heard in other companies composing this regiment, the affairs of this company were like clock work, each member getting his 'meat in due season' and although absent but twelve days, some of the boys when returned, weighed more than when they left for camp. Should we however, commence to praise, we would know not where to end, as all seemed to vie with each other, as to who should do the most to make all pleasant and agreeable. / The *Scranton Republican* also gives 'our boys' a fine notice, as follows: / 'Our streets were enlivened this morning by the stirring martial music and regular tramp of our returned militia. The Wurts Guards of Carbondale, which formed Company C, 13th Reg. Penn. Militia, Capt. James Nicol, Lieuts. Hosie and Wurts, made a splendid appearance as they left town, escorted through the streets by the Keystone Guards of Scranton, Company I, same Reg., Capt. Jno. T. Langstaff, Lieuts. McCune and Langstaff. These companies reached Scranton at a late hour last night, [Thursday, Sept. 25,] very unexpectedly. It is to be regretted that our citizens were not on the alert, to give them a rousing welcome. As it was their arrival passed off very quietly, with the exception of a hasty entertainment at Burger's, tendered them by a couple of enterprising Nay Augs. The 13th Reg. was not of the number that refused to cross the State line, but formed a part of McClellan's advance on Friday night, one mile and a half beyond Hagerstown." (*Carbondale Advance*, October 4, 1862, p. 3)

Rail travel was dangerous in the nineteenth century:

"Archbald, Oct. 31, 1862. / Mr. Benedict:--When the drafted men from this place on last Monday a large number of their friends went with them as far as Scranton. On the return of the party through Providence, a young man named James Killday had his leg dreadfully mangled by the wheel of the car passing over it. He was brought to this place on Monday night, and on Wednesday morning the leg was amputated by Dr. John Foote, assisted by Dr. Durcan of Pittston and Dr. Boardman of Scranton. So far he is doing well." (*Carbondale Advance*, November 1, 1862, p.3)

Payment for those who responded to the Governor's call for troops:

"PAY OF THE MILITIA WHO RESPONDED TO THE GOVERNOR CALL.—Many inquiries have been made as to the payment of the militia who were called into service by Gov. Curtin in September last, and who participated in the defense of the State. The Legislature passed an act paying these men, provided the General Government does not make such payments within six months. The act gives 'fifteen days pay and subsistence at the same rate as are allowed by act of Congress to regulars and volunteers, the Adjutant-General to furnish the Auditor-General, on oath, the names of all commissioned and non-commissioned officers and privates who were in service and entitled to pay, and the Auditor-General to draw his warrant on the State Treasurer for the amount, countersigned and approved by the Auditor-General. If the Federal Government

should make payment within six months, said payment to be taken in lieu of that provided by this act. The Governor shall receive from the Treasury of the United States the sum appropriated by Congress for the pay and subsistence, and accept the same in full of such pay and subsistence, the State of Pennsylvania hereby assuming to pay the same, according to the provisions of this act.'—*Pittston Gazette*." (*Carbondale Advance*, May 23, 1863, p. 3)

The D&H paid \$5,000 as bounties to the volunteers:

"BOUNTIES. The D. & H. C. Co., have directed the payment of \$5000 as bounties to the volunteers for the emergency from this County. The citizens of this borough have raised \$2700 for the same purpose.—*Wayne Co. Herald*" (*Carbondale Advance*, July 4, 1863, p. 2)

July 1-3, 1863, Battle of Gettysburg:

The South suffered 30,000 killed, wounded or missing, the North, 23,000.

July 4, 1863, Battle of Vicksburg:

The South lost 8,000 killed and wounded, more than 29,000 surrendered; Union casualties were 8,910.

July 13-16, 1863: anti-draft riots in New York City—nearly 1,000 persons killed or wounded:

". . . the attackers were ordinary city slum dwellers who had been enraged by the new draft law, whose provisions callously favored the rich by offering them exemption if they would simply pay substitutes to serve in their stead. Many of the new rebels were Irish-American laborers who hated and feared the competing Negro—especially since employers had brought gangs of freed slaves into New York to serve as strikebreakers. Some of their leaders were Tammany Democrats anxious to do everything possible to undermine the Republicans' war effort. Well supplied with frenzied racial slogans and drink, the mob struck at everything that seemed to embody the Republican order. It went out especially after Horace Greeley. . ." (*Horace Greeley Voice of the People* by William Harlan Hale, 1950, pp. 271-72)]

The D&H put on a special train from Honesdale to Carbondale to provide transport for the conscripts who had to report to Easton:

"On the Del. & Hud. Railroad a Passenger train has been run from Honesdale to this city each morning during the present week for the accommodation of the Wayne county conscripts who report at Easton. The train has been well filled." (*Carbondale Advance*, November 7, 1863, p. 2)

The roster of the Wurts Guards:

“THE WURTS GUARDS. / Arranging for a Reunion of Emergency Men. / The Veteran Militiamen to Celebrate in This City on Washington’s Birthday. / While it is not generally known that many of the men, who in ‘63 responded to the call for volunteers to meet the rebel hosts who invaded Pennsylvania are entitled to pensions, that is really the case. / Representative M. T. Burke, of this city, at the request of one of our citizens has looked up the matter and has learned through the adjutant general that the emergency men who served in the 13th Regiment Pennsylvania militia have the same rights under the United States pension laws that men who served in the army of the Potomac are entitled to. / To remind the survivors and to stir up the memory of residents who remember the departure of Carbondale’s military organization for the border counties, to remind the patriots who took part in the reception tendered the boys on their return, and to help the militia men recall the fact that it was nearly seven months after their return before the United States army paymaster put in an appearance with the money they were entitled to, we publish the roster of the Wurts guard.

COMPANY C, 13TH REGIMENT, P. V. M.

Captain.....James Nicol
First Lieutenant.....James Hosie
Second Lieutenant.....Albert S. Wurts
First Sergeant.....Michael Dugan

SERGEANTS.

Thos. R. Lathrop,	William Nicol,
Henry Wilson,	Henry Chapman,

CORPORALS.

Robert Drake,	James Wright,
Thomas Lindsay,	William Karger,
Aug. S. Wurts,	Thomas Sullivan,
Wm. Prudhoe,	Conrad Fisher,
Musician, Ezra W. Jadwin	

PRIVATES.

James Allen,	Jesse G. Bagley,
S. D. Baker,	Charles W. Barker,
Thos. S. Barrett,	Geo. W. Benedict,
William Brown,	Angus Cameron, jr.
Agar Campbell,	Loftus Campbell,
Wm. Campbell,	Bernard Campman,

M. Chamberlain,
Sidney A. Crane,
Francis N. Dunn,
John Decker,
Fred Fichencher
Frederick Goeble,
D. W. Gathercole,
Samuel G. Barker,
John Harris,
Lewis W. Holford,
Christian Honold,
William N. Hunter,
Thos. Hurley, Jr.,
George Johnson,
Edward F. Joslin,
J. T. Kirkbride,
James Kirkwood,
Thomas Lewsley,
Oscar C. Moore.
C. O. Mellen,
William Moses,
J. McLaughlin,
L. O'Rourke,
Hugh Powderly,
Joseph W. Peck,
John E. Richmond,
Charles Rowe,
Wm. Ridley, Jr.,
Daniel Scurry,
Fred. Siegel,
Nicholas Smith,
George T. Stone,
John Taylor,
David Ulmer,

Nathan P. Cramer,
Charles H. Daley,
Edward Y. Davis,
Thomas Evans,
C. Farnham,
William Goeble,
John Gesler,
Luther Godding,
Thomas Haigh,
Robert Holland,
Edward Howells,
Robert E. Hurley,
Joseph Isgar,
Marwood Jordan,
H. B. Jadwin, Jr.,
Wm. Kenworthy,
W. W. Lathrop,
John S. Law,
John Maxwell,
John E. Mills,
James McMillan,
John McLean,
Townsend Poor,
John Powderly,
John Pettigrew,
Charles Race,
William Reese,
Thomas Samuels,
John Sherman,
George Smith,
Daniel Stephens,
Henry Swartz, Jr.,
John L. Taylor,
John Ulmer,

Joseph B. Vannan,
Thos. B. Vannan,
John H. Wilson,
Asa Yarns,

(clipping in a Gritman scrapbook dated "THURSDAY, FEBRUARY 2, 1893; clipping probably from the *Leader*)

John D. Wedeman,
Samuel Williams,
Theodore F. Wurts,
William Yarns.

Letter dated July 4, 1865, Greenfield Township (now Lackawanna County), from Mrs. John P. Finch (M. J. Finch) to her husband Mr. John P. Finch in the Douglas Hospital Ward 7, Bed 49, Washington, DC"



(Mr. John P. Finch / Douglas Hospital Ward 7 Bed 49 / Washington D. C.)

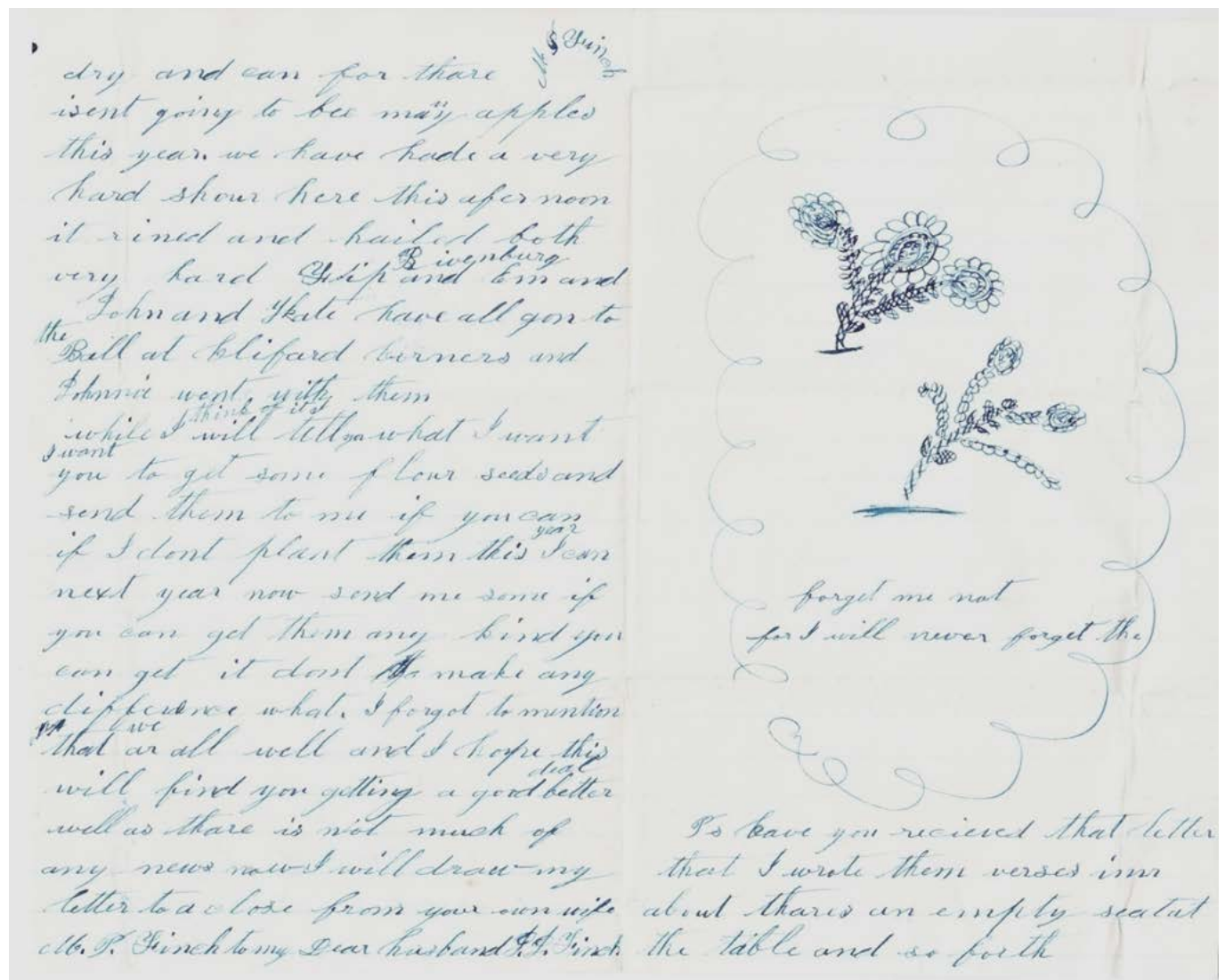
Letter is postmarked "Carbondale PA Jul 7"

Wm. B. Ginn
1865

Greenfield July 4th 8/65

My very Dear husband
with pleasure I sit my self
down to answer your kind
letter that I recieved yesterday
I did not answer it last night
for I knew I should not get
any chance to send it to
day for they wer all going
to the forth ~~by~~ by the ^{way} ~~way~~
how have you spent your forth
John I have stayed at home
all day only I and Mrila
went and picked some black
rosberries yesterday I ^{went} alone with
the children and picked our
six quart pail almost full
of berries with the baby in my
arms and I am drying all of
them I ^{am} going to get all I can to

[Greenfield July 4th 8/65 / My very Dear husband / with pleasure I sit my self / down to answer
your kind / letter that I received yesterday/ I did not answer it last night / for I knew I should not
get / any chance to send it to / day for they wer all going to the fourth by the way/ how have
you spent your forth / John I have stayed at home all day only I and Mrila/ went and picked some
black / berries yesterday I went alone with / the children and picked our / six quart pail almost
full / of berries with the baby in my / arms and I am drying all of / them I am going to get all I
can to /]



[dry and can for there / isn't going to be many apples / this year we have had a very / hard shour here this afternoon/ it rined and hailed both / very hard Skip Rivenburg and Emond / Johnson and Katre have all gon to / the Ball at Clifford Corners and / Johnnie went with them / while I think of it will tell you what I want/ I want you to get some flour seeds and send them to me if you can/ if I don't plant them this year I can / next year and send me some if /you can get it don't make any / difference what I forgot to mention/ that we are all well and I hope this / will find you getting a good deal better / with us there is not much of / any news now I will draw my / letter to a close from your own wife / M. P. Finch to my Dear Husband J. J. Finch / forget me not /for I will never forget thee. / Ps have you received that letter / that I wrote them verses in / about there is an empty seat at / the table and so forth]

Another Carbondale militia unit, the Van Bergen Guards:

"CAPTAIN THOMAS M. LINDSAY was born in Carbondale, October 3d, 1841, and married Mary A. Reese, of Wales. He was formerly a blacksmith, and is now in the employ of the D & H Canal Company. At the organization of the Van Bergen guards, Company F 13th regiment N. G. Pa., he was its 1st lieutenant, and was promoted to the captaincy March 4th, 1879." (1880, p. 452D)

General Lee Surrenders at Appomattox Court House, April 9, 1865; see article titled **"UNION ! VICTORY!"** in the *Carbondale Advance* of April 15, 1865, p. 2.

The D&H's participation in the victory ceremonies is described in the same issue, on the same page, of the *Carbondale Advance* in the following article:

"THE VICTORIES. / Demonstrations of Joy in Carbondale. / According to previous arrangement, at three o'clock Tuesday afternoon, the Bells of all the Protestant churches in Carbondale were rung, and the whistles of the Del. & Hudson Canal Co. Engines were blown, and 200 Guns were fired. The fantastics in motley garbs paraded the streets, etc. / In the early part of the evening a crowd of people assembled in front of the M. E. Church, where a Platform had been erected for the occasion, during the afternoon. At seven o'clock the meeting was organized by electing Mr. Henry B. Jadwin, Jr. Chairman, and H. P. Hathaway, Secretary. The Soldiers that have been stationed here during the winter were present, and their bayonets glistened in the bright lamplight, presenting a most imposing aspect. The Wyoming Annual Conference being in session in this City, an invitation was extended to that venerable body to furnish Speakers for the occasion, several kindly volunteered. The chairman called the meeting to order, by stating briefly the worthy object for which we were convened there, and introduced to the audience the Rev. G. M. Peck, former Pastor of the M. E. Congregation in this City. The speaker congratulated his hearers upon the happy occasion on which he was permitted to greet them again, alluding briefly to the great change in the prospects of the people of this country within a very short time, and the unmistakable signs of approaching peace. 'It is befitting,' he said, 'that we should give thanks to God, who is bringing to so successful an issue the cause, in defense of which, the blood and treasure of the Nation had been poured out like water.' He was followed by the Rev. Mr. Keys, the Rev. J. K. Peck, the Rev. Mr. Hillier, and the Rev. Mr. Wheeler. It would be superfluous for me to speak of the merits of the extempore efforts of these Rev. gentlemen, but suffice it to say that I never witnessed a more attentive audience for so long a time. / During the intervals of speaking we were entertained by the firing of rockets, and the discharge of Cannon on the Public Square. / After the speaking, the chairman called for three

cheers for Abraham Lincoln, Gen. Grant, Gen. Sherman, Little Phil. Sheridan, and the Soldiers and Sailors of the American Union. / All then united in singing 'Union Forever' and the 'Star Spangled Banner' and then dispersed. Many of the principal residences were brilliantly illuminated. / Much credit is due to Mr. Henry B. Jadwin, for his efforts in collecting money with which to purchase fire-works, etc., for the able manner in which he conducted the exercises of the evening. / H. P. Hathaway, Sec." (*Carbondale Advance*, April 15, 1865, p. 2)

Carbondale's Civil War Soldiers Who Have Passed Away

--as listed in the *Carbondale Leader*, May 26, 1899, p. 2 (Note: The names of veterans of the Civil War who died after May 26, 1899 would not, of course, be in the lists given below. It is important that those post-1899 deaths be determined and added to the lists given here.)

OUR HONORED DEAD.

List of Carbondale's Soldiers Who Have Passed Away—See
That Their Graves Are Strewn With Flowers
on Tuesday Next, Memorial Day.

**CORRECTED LIST OF THOSE WHO ARE BURIED
IN THE CEMETERIES IN THIS CITY.**

Maplewood Cemetery.

NAMES.	WHERE DIED.
1 Charles B Mason	Carbondale
2 Wm A Davis	David's Island, N Y
3 Wm Shannon	Carbondale
4 Fred'k Ulmer, Hospital,	Washington
5 Ernest Johnson	Carbondale
6 Luman O Berry	"
7 Erastus Berry	"
8 Henry J Baker	"
9 J H Phillips	"
10 Henry W Whiting	Massachusetts
11 H N Whiting	Carbondale
12 Robert G Bailey	"
13 George Forrester	"
14 James Foster	"
15 William Easter	"
16 William J Hughes	"
17 J H Bronson	"
18 George Styles	"
19 John D Wedeman	Mill Creek
20 James Willis	Carbondale
21 Frederick Glutz	"
22 Evan Breese	"
23 Edwin Reese	"
24 John Black	"
25 James Forrester	"
26 John Campbell	"
27 Isaac Siebottom	"
28 Geo J Davies,	Communipaw, N J
29 James Belknap	Carbondale
30 George M Rowley	"
31 Alfred Dart	"
32 Lewis Deering	"
33 Wm M Thompson	"
34 Amos Guard	"
35 M P Bailey	"
36 John H Marcy	"
37 Lewis Decker	"
38 Lucius Marshall	"
39 Jacob Bryant	"
40 Benj H Thomas	"
41 Eliab Gilbert	"
42 John Scurry	"
43 James M Drumm	"
44 E lis Roberts	"
45 Wm Herring	"
46 Thos Jardine	"
47 Carr Simpson	"
48 John T Peck	"
49 John Newton	"
50 William Smith	"

51 Thos H Woodward	"
52 John Mahoney	"
53 Thos R Lathrope	"
54 John Tracy	"
55 Jos E Parker	"
56 Peter Matthews	"
57 C R Vogel	"
58 Benjamin Geary	Dunmore
59 Charles H Hollis	Carbondale
60 Frank Miller	"
61 Calvin Parsons	Wilcox
62 James M Stewart	Carbondale
63 John Alpaugh	"
64 Samuel D Baker	"
65 Wm N Cole	"
66 Chas E Turner	"
67 George Porter	"
68 Truman Whipple	"
69 Truman D Bradley	De Land, Fla
70 William Nicol	Carbondale
71 Silas Wedeman	"

Old Catholic Cemetery.

1 Patrick Gallagher	Carbondale
2 Hugh Gallagher	"
3 John McHale	"
4 John Wills	Carbondale
5 John McGowan	"
6 Michael Quigley	"
7 Anthony Loftus	"
8 Matthew Norton	"
9 Thomas Kirkwood	"
10 Patrick Brennan	"

New Catholic Cemetery.

11 Captain M Flynn	Carbondale
12 Thomas Nolan	"
13 Andrew O'Connell	"
14 James Cannon	"
15 Terrence Scanlon	"
16 Thomas Kilpatrick	"
17 Dr Richard Foote	"
18 Thomas Walker	"
19 William Perham	"
20 John Linnen	"
21 Thomas Gilhool	"
22 Charles Timmons	"
23 Thomas Sullivan	"
24 Martin Barrett	"
25 Charles Boland	"

26 Patrick Flood	New York city
27 Alex McLean	Carbondale
28 Martin Hanophy	"
29 Timothy Burns	"
30 Barney O'Rourke	"
31 Andrew Fagan	"
32 John Lyng	"
33 Thomas Smith	"
34 Anthony Woody	"
35 John Flannery	"
36 Michael Surdival	"
37 Edward Burke	"
38 John O'Grady	"
39 Edward Lynn	"
40 Thomas Farrell	"
41 Michael Golden	"
42 Michael Morrison	"
43 Michael Farrell	"
44 Patrick Fallon	"
45 William W Walker	"
46 Daniel O'Connell	"
47 Martin Healey	"
48 John Scanlon	"
49 Patrick O'Rourke	"
50 James Duffy	"
51 John Weidner	"
52 John Gordon	"
53 John Kelly	"

Brookside Cemetery.

1 James Palmer, Post 397	
2 James V Irwin	Carbondale
3 Malcolm L Rowlson	"
4 Henry Baker	"
5 Selah Brock, Susq. Post,	"
6 Nicholas Peters	"

Greenfield Cemetery.

Alban M Burdick (Vail)	
Wm Cordner (Green)	
G W Buchanan (Lee)	
William Sweet (Vail)	
Hiram Tompkins (Wedeman)	
Daniel B Coon (Peck)	
Daniel Vail, Carey cem., Scott	
Wesley Thatcher, Meredith cemetery,	
near Carbondale	

Veterans of Other Wars.

Col. Dennis Graham	Florida war
James B Moran	Mexican war
Michael B White	Florida war

THE SILENT ROLL.

Corrected List of Our Soldiers Who Have Died and Were
Buried Away From Carbondale.

Benjamin Havard, Andersonville Prison	Horatio R Pierce, Scranton, Pa
Edwin Hall " "	Col Wm N Monies " "
Conrad Fischer " "	John W Mason, Green, N Y
Charles Sherwood " "	Wm Walker, Nevada
Edgar F Cramer " "	John Brennan, " "
Dennis Sullivan " "	Wm Battle, 2d Battle Bull Run, Va
Samuel Lane " "	Russell Harris, Port Jervis, N Y
James Barton " "	Stephen Brundage, Washington, D C
Elisha Guard " "	Samuel H Pattent, Lincoln hospital,
Michael Hickey " "	Washington, D C
Clark R Darte " "	James McLaughlin, in Battle Antietam
William Hunter, Salisbury Prison	Daniel Hazen, Phila. hospital
George A Whiting, Baltimore, Md	David Vail, unknown
Charles A Whiting, at Sea	Oscar Smith, " "
Jacob A Turner, Soldiers' Home, Wash-	Lewis B Dings, Falmouth, Va
ington, D C	Martin Chamberlin, Hartford, Pa
John Grady, Arizona	Geo Chamberlain, Harrisburg, Penn
John Lane, Hart's Island, N Y	George Phillips, " "
Thomas Murphy, Georgetown hospital,	Charles Manzer, Washington, D C
Washington	John Manzer, " "
James Gilhool, Battle Wilderness	Edwin F Adams, Harford, Susq Co
John Gilhool, " "	William Conrad, Gibson, Pa
Daniel Bradley, Battle Fair Oaks	Charles A Dart, Elkdale, Pa
John Mooney, Mansfield, Pa	David Price, Gibson, Pa
Griffith Reese, Louisville hospital	John Lynch, unknown, in the Army
Richard Miller, Libby prison	Charles Maxwell, Battle of St. Mary's
Dilton Taylor, David's Island, N Y	Church, Va
Richard Taylor, Providence, Pa	Oran W Taylor, Providence, Pa
James Gordon, 2d Battle Bull Run	Frank Hudson, Wilkes-Barre
Thomas Nolan, Washington, D C	Geo W Sampson, Post 187, Dunmore
Almon Engle, David's Island, N Y	John Finnan, Danville, Pa
Peter Vankirk, Susquehanna, Pa	Frank Le Roy, Camp Stoneman, Va
Bryan Kelly, New Orleans, La	Chas H Estabrook, Jackson, Susq Co
George A Decker, Norfolk, Va	Ira Davenport, Canaan cemetery
Lewis Hudson, Washington, D C	Peter Galligan, Pittston, Pa
Walter Rosser " "	John Dresser, New Orleans
Charlton Benham, Boonsboro, Md	Luther H Sampson, Peekville
Patrick Dougherty, Leadville, Col	Minor C Connor, Scranton
Michael Reap, Battle Wilderness	Lewis Sillsbee, Peekville
John Coyle, Washington, D C	John T Amerman, Glen Dyberry Cem ,
Lemuel Haskins, Morris, S C	Honesdale

Two Carbondale soldiers died in the Spanish American war:—C. W. Tallman, buried at Jackson; Wm. Craig, died and buried in Cuba.

The Carbondale GAR Monument in Memorial Park. This monument was made by the Monumental Bronze Co. of Bridgeport, CT. Monument dedicated on May 30, 1885. The dedicatory oration was delivered by Judge Alfred Dart. A copy of the complete text of Judge Dart's oration is in the archives of the Carbondale Historical Society.



The following sketches of the life of Judge Alfred Dart, who attained the rank of Colonel in the Pennsylvania militia, were published in the *Carbondale Advance* of August 18, 1883, p. 3:

"Judge Alfred Dart departed this life on Tuesday morning at quarter to eight o'clock, in the 74th year of his age. Thus has another landmark been swept away. He was identified with the growth of our town from almost its first inception and was probably as well known as any man in this part of the State. He had been in failing health for two or three years, but his energy and pluck kept him up and about after many a man would have taken to his bed. / The following interesting sketch of his life appeared in the *Republican* of Wednesday morning: / Alfred Dart was born in Bolton, Tolland county, Conn., in 1810, and was therefore seventy-three year old. In 1829 he left his native State and settled in Dundaff, Susquehanna county, which was then a much livelier village than it is now. The place was the principal business center of northeastern Pennsylvania, and was of far more importance than Carbondale, which, in the course of a score of years, outstripped the Susquehanna county village. In 1830 he was married at Dundaff to Miss Ann Cone, who was a native of Ulster county, N. Y. Four children were born unto them, namely, Mrs. James Thompson, and Miss Hattie Dart, of Carbondale, and Hon. Alfred Dart, ex-District Attorney of Luzerne county, and L. C. Dart, ex-County Commissioner of the same county. Judge Dart lived in Dundaff until 1845, when he moved to Carbondale, which city was his home during the remainder of his life. He ranked as Colonel in the State militia thirty years ago. / In April, 1861, Judge Dart raised and commanded the first company of volunteers that went from this section of the State. The company was attached to the Twenty-fifth Pennsylvania volunteers, a regiment which is now known as the First Defenders, Colonel Coke commanding. He and his company remained for three months in the service, when they were discharged. He immediately returned to Carbondale and began to raise another company of volunteers. There was then a nest of secession sympathizers in the town, some of whom undertook to interfere with his patriotic efforts. His recruiting office was in the second story of the building on the southwest corner of North Main and Salem streets, where a crowd attempted to mob him on a pleasant summer day in 1861. He never knew what fear was, and, when the disturbers had been thoroughly whipped by Mr. Dart and his little party of assistants, they looked upon him with awe. In the fracas he had lost some of his front teeth, but he cleaned out the mob, some of whom afterward joined his company. In a few days he had recruited his company, which was known as Company M, Fourth Pennsylvania Cavalry. He was wounded at the battle of Antietam. In 1863 he was sent to Fort Leavenworth, Kansas, where he organized and commanded a regiment of Sioux Indians. After his return to Carbondale he resumed the practice of law which he had begun there in 1845, and which he continued to do until a few years ago. Colonel Dart was an Abolitionist in every sense of the word. In the early days of the rebellion he placed a musket in the hands of his colored servant, one Henry Brown, who is now a resident of Wilkes-Barre, telling him that in case any one questioned his authority to carry arms to refer such persons to the Colonel. Many old soldiers remember Brown as the first colored man they ever saw with a musket. / Judge Dart was an active Republican, and was one of the organizers of the party in Luzerne county. He was a delegate to the first Republican Convention held in the county. In 1873 he was elected Judge of the Mayor's Court of the city of Carbondale. He held that office until 1874, when the Court was abolished by the new Constitution of the State. / He descended from fighting stock, his father and seven of his father's brothers having served in the Revolutionary war. He was remarkable for his

independence of thought and expression, and for his contempt for what people call policy. He hated shams and cant, and liked the society of those who had opinions and independence enough to express them. His own intense physical sufferings were known to no one but himself, and, although he was not a reticent man, he believed in saying little about those things which were of no interest to his listeners. He was a patriot through and through, and no one could be braver than he. He was generous-handed, kind hearted, and a sincere friend to his worthy fellow men. / The funeral took place from his late residence at two o'clock on Thursday, and was conducted by the Davies Post, No. 187, G. A. R. The remains were followed to the place of interment in Maplewood Cemetery by a large concourse of people. /MEETING OF THE BAR. / A meeting of the bar was held at W. F. Lathrop's office, Tuesday, August 14th, at 4 o'clock p. m. to offer resolutions of condolence upon the demise of Hon. Alfred Dart. / P. C. Gritman, Esq., was called to the chair and Geo. H. Squier was appointed secretary. / The following were adopted: / 1st. *Resolved*, That while it is with deep feelings of sadness that we learn of the demise of our brother, as it has pleased Almighty God in His infinite wisdom to thus deal with us, we bow in humble submission. . . / The following is from the pen of C. E. Lathrop, Esq., of the Carbondale *Leader*: / Judge Dart died at his residence in this city last Tuesday, at the age of seventy-three. For some years past he has been suffering from bronchial catarrh, which finally developed into consumption. His life was undoubtedly prolonged by a naturally strong constitution and an indomitable will-power which he possessed in a remarkable degree. He was a native of Bolton, Tolland co., Connecticut, and was a fair specimen of the energetic stock produced in that State. His beginning in life was an humble one, and whatever of success he achieved was wrought out by his own efforts. He was, emphatically, a self-made man, and his career is a notable instance of the poor boy rising to wealth and prominence. But few who are living now can appreciate the amount of energy and perseverance which entered into his attempts to fit himself for his profession. The difficulties seemed almost insurmountable, but he conquered them all, and reached the highest point in a lawyer's ambition—a seat upon the Bench. / At the age of nineteen, Judge Dart migrated to Dundaff, then the most important point in this portion of the State. The railroad had just been completed to Honesdale, and Carbondale had fairly started on its prosperous career. [emphasis added] As it advanced in population and business facilities, Dundaff was overshadowed, and many of her citizens removed hither.—Among the number, was the subject of this sketch. It was not, however, until 1845 that he made this place his permanent home. / He had in early life a taste for military affairs, and his zeal in that line soon obtained him the rank of Colonel in the State Militia. The breaking out of the rebellion in 1861, offered a fine field for his military propensities, and he threw his whole soul into the cause of his country in that dark and trying hour. He set about recruiting a company, and soon reported at headquarters with a fine body of men known as Co. M Fourth Penn'a Cavalry. His command participated in several battles, and he received a wound at Antietam. At Fort Leavenworth, Kansas, in 1863, he organized and commanded a regiment of Sioux Indians, which did good service in the western campaigns. It is claimed that he was the first officer in the army who put a musket in the hands of a colored man. / Judge Dart was a democrat in politics until the organization of the republican party. He was at one time a republican candidate for the legislature, but was defeated, although

running considerably ahead of his ticket in this locality. In 1873 he was appointed Judge of our Mayor's Court, by Gov. Geary, and later was elected to that position, serving until the abolishment of the Court in December, 1875. / As a citizen the deceased was public spirited, and he did much to improve the place. Monuments to his enterprise are scattered around the town, and will serve to perpetuate his memory in future time. He had peculiar characteristics,--was positive in his views, a firm antagonist, and in earlier years was somewhat harsh and severe in his manner, and was ever regarded the poor man's friend. / The deceased was married in 1830 to Ann Cone, and four children were born to them, all of whom survive. Mrs. James Thompson, Miss Harriet Dart, of this city, and Alfred, Jr., and Luther C., of Kingston, Pa. The two sons are prominent citizens of Luzerne county both of them having filled important offices, the former that of District Attorney and the latter, County Commissioner. / The familiar form of the deceased will be missed in our streets, but in no place will his loss be so severely felt as in his own home. His daughter, who during his long and painful final illness has ministered to his wants with more than filial devotion, will mourn his absence from the paternal roof, and to her, particularly, will the sympathies of the community be extended."

5930

Extension to Valley Junction and Back

In 1857, the D&H Gravity Railroad was extended four and one-half miles farther down the Lackawanna Valley, from Archbald to Olyphant / Valley Junction.

"In 1857, the [Gravity] railroad was further extended to Olyphant, which became and remained the southern terminus of the system." (*Carbondale News*, 01-10-2001, p. 7, full page article on Archbald to commemorate the 125th anniversary of Saint Thomas Aquinas church)

Valley Junction: a half-mile below Olyphant, where the Gravity and steam locomotive tracks intersected.

Olyphant was named after George Talbot Olyphant, President of the Delaware and Hudson Canal Company. The borough was incorporated in 1877 (before that time Olyphant was a part of Blakely Township, and before that it was part of Providence Township)

There were eleven houses of worship in Olyphant at one time: Saint Patrick's, Saint Michael's, Holy Ghost, Saint Cyril's, All Saints, Saint Nicholas', the Synagogue, Welsh Baptist Church, Bethel Congregational, First Presbyterian Church, and Saint George's Episcopal Church.

February 26, 1858: the D&H Board of Directors authorized, under John Wurts, president, the extension of the Gravity Railroad to 'Dolph Ridge' (in what is now called Olyphant). The building of the Albany & Susquehanna in the same year meant outlets to the north and east.

Proposals being received for the extension of the Railroad:

"New Advertisements. / C. P. Wurts, Esq., Chief Engineer of the Del. & Hud. Canal Co., advertises to receive Proposals until June 1st for the extension of their Railroad." (*The Advance*, May 22, 1858, p. 2)

The Notice from Wurts (see above) was clipped from page 2 of the May 22, 1858 issue of *The Advance* by someone in the 19th century.

In the June 5, 1858 issue of *The Advance* (p. 2) we read the following the following notice:

"The contracts for Grading the extension of the company's Railroad below Archbald have been allotted to Messrs. Clarkson, Hosie, and Nichols."

And then in the July 24, 1858 issue of the same newspaper:

"We understand that the laborers at work for the contractors upon the extension of the Company's Railroad below Archbald are upon "a strike" for higher wages. It will probably result in the loss of both work and wages." (*The Advance*, July 24, 1858, p. 3)

The extension to Valley Junction was completed during 1858, at a cost of a little over \$300,000, and was financed by an issue of seven percent five-year bonds in that amount which were dated June 1, 1858.

Not only was the Gravity road extended to Olyphant at this time (1859), and later (1860) to Providence and then to Green Ridge, the Gravity was also subsequently extended from Green Ridge to Hudson:

"The road was extended from Archbald to its end at the 'Foot of G,' south of Olyphant, in 1859. A single track was built from Olyphant to Providence and later to Green Ridge, this portion of the road being operated by locomotive, and a third rail was laid to a standard gauge when the 'Valley' line was built from Carbondale to Olyphant in 1871. A third rail was subsequently laid within the standard gauge from Green Ridge to Hudson so that coal could be shipped in the gravity cars direct from the breakers to the canal." (Our Own 'Gravity Road', p. 9 of *The Delaware and Hudson Canal Company Bulletin*, July 15, 1925)

In 1859 the D. & H. made their first attempt at establishing a passenger service between Carbondale and Providence over their newly constructed railroad. A freight car was fitted up with a door at each end. Small single pane windows at the sides furnished light and ventilation. The car made at first one trip daily. The venture was liberally patronized. Cars of better type were designed and put in service.

March 15, 1868: George Talbot Olyphant elected president of the D&H (*COP*, p. 161 says he was elected on March 15, 1858).

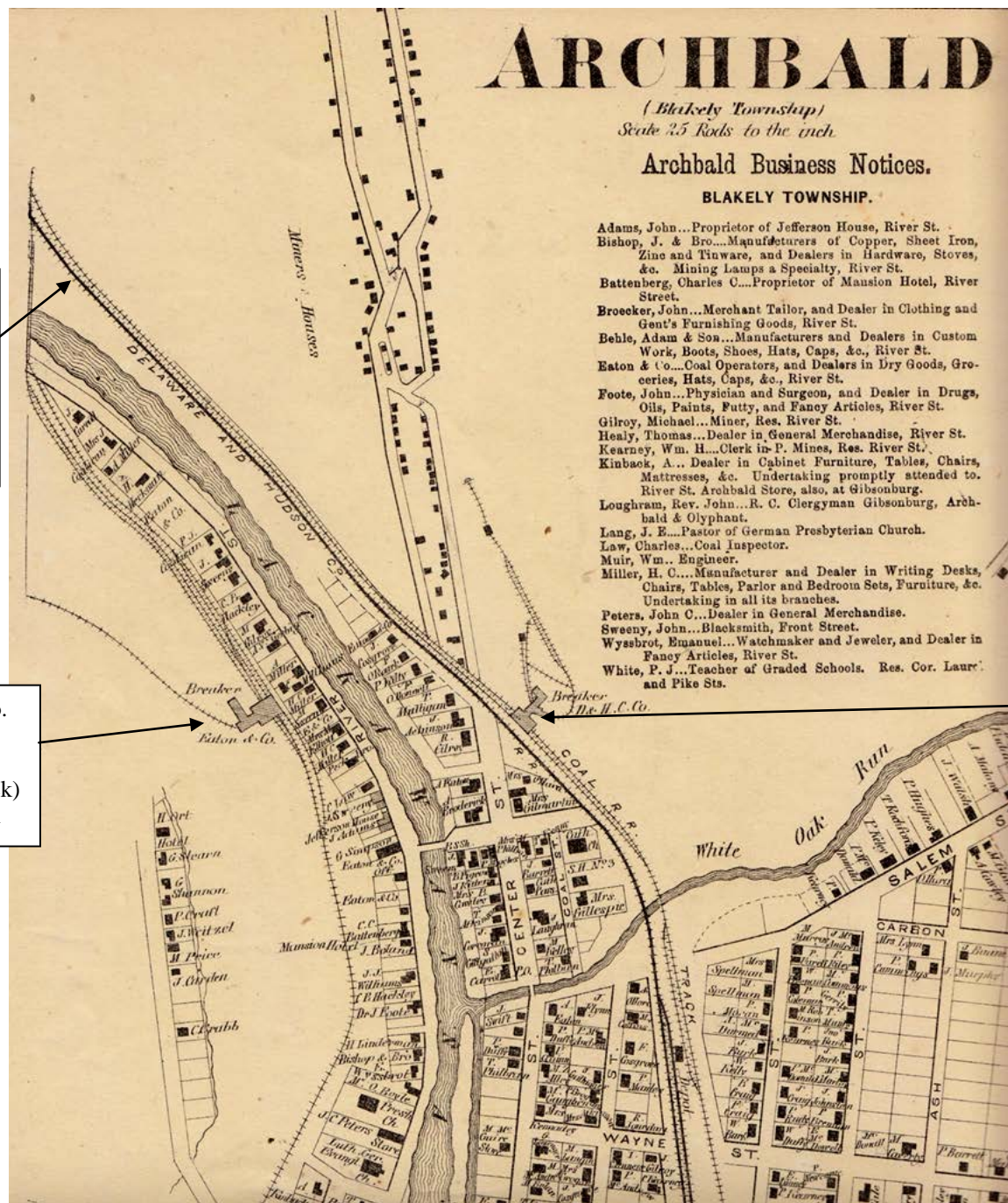
Olyphant had a strong interest in enlarging the D&H's coal lands. The D&H obtained, therefore, a supplement to its Pennsylvania charter allowing it to own 3,000 additional acres of land.

On June 3, 1859, the Board accepted Olyphant's offer to sell it 2,100 acres of coal lands in Luzerne, Wayne, and Susquehanna counties. The D&H then bought Olyphant's 2,100 acres plus 1,400 in which he was joint owner. Olyphant then persuaded the Board to extend the line 4.5 miles from Olyphant to the Van Storch property (Providence). These tracks would be Gravity-gauge, with the cars being moved by Gravity-gauge steam locomotives.

Hollister speaks of the important role played by George T. Olyphant and Thomas Dickson in the acquisition of these new coal lands as follows:

"There was no disposition on the part of the Officers of the Company to enlarge the sphere of its coal territory or its railroad until the active minds of President Olyphant and Superintendent Dickson exhibited a desire and a way for their expansion. / In August of 1858 Hon. Lewis Pughe, of Scranton, Edward Jones, of Olyphant, and Abel Barker of Wyoming made a lease with William Hull for some 500 acres of coal lands in Blakely and the same year the same parties made a contract with Mott, Vosburg and Newton for other coal lands lying in the townships of Blakely now Olyphant. / The first named party made a contract in 1858 with the Delaware and Hudson Canal Company to furnish it with 150,000 tons of coal per annum, at 12 ½ cents per ton royalty until the coal from these two tracts was exhausted. Barker, Pugh and Jones also leased the coal lands at Dickson and subsequently sold their lands at Dickson to W. H. Richmond and Charles P. Wurts, now worked to advantage by the Elk Hill Iron and Coal Company, of which W. H. Richmond is President. / As late as 1860 the Delaware and Hudson Canal Company owned no coal lands below Olyphant. Lands already condemned and deemed worthless by acknowledged engineers, lying in Blakely and Providence, were brought into requisition only by the advice and foresight of Thomas Dickson after his appointment as Superintendent of the gravity Railroad." *Hollister*, unpublished typescript (pp. 158-59)

The Gravity Railroad into Archbald (loaded and light track) is shown on the two details from map of Archbald given below from *D. G. Beers* 1873.



D&H locomotive line up and down the valley

Eaton & Co. Breaker, on Level 25 (loaded track) in Archbald

Birdseye Breaker, on Level 20 (light track) in Archbald

Ed Casey, May 13, 2013: "The Birdseye Breaker on the West side of town was built on the site where the White Oak Breaker stood. Dr. Birdseye leased from the D&H this side of the river as an investment. . . At the base of No. 5 hill there is shown, on the 1864 map of Archbald that I have, a building marked 'J. Archbald.' Is there a connection between this building and James Archbald?" SRP note: The Birdseye Breaker was on the East side of town.



When Plane No. 21 "C" was installed, it was operated by a water wheel. This canal provided the water for the wheel.

Plane 21, light track, Archbald to Peckville

Hensel Views of Archbald

Views of Archbald and vicinity in the 1879 L. Hensel stereocard series titled “A Ride over the Del. & Hud. Gravity Road into the Coal Regions, Photographed and Published by L. Hensel, Port Jervis, N. Y.”

1132, 1133: View down the Lackawanna Valley from Plane 26

1134, 1135: Views of Gravity Road from Head of No. 25 Plane

1136 View of Archibald [sic] from Loaded Track.

1137 View of Archibald [sic] and Coal Breaker, seen from Railroad

1138 View of Railroad Bridge at Foot of No. 26 Plane

1139 View of Archibald [sic] and Coal Breaker, seen from Bridge at Foot of No. 26 Plane

1140 View of Jermyn, seen from Head of No. 27 Plane.

Light Track: Archbald to Valley Junction

Two planes: Plane 21 “C” in Archbald, and Plane 22 “F” in Peckville.

The route of the Gravity Railroad through Archbald:

From the Archbald Centennial publication:

”Following the Gravity through Archbald / Even though the Gravity railroad has been abandoned for 77 years most of the old railroad bed can still be traced and followed through the borough. As was stated before, the Gravity Railroad consisted of two separate lines. The Light track which returned the empty cars from Carbondale to the mines, and the Loaded track which took the loaded or full cars to Carbondale then over the Moosic Mountains to the canal at Honesdale. The reason for the separate roadbeds being that in order to run the cars by gravity the track had to be slanted in the direction of travel. / The light track entered the north end of the borough in the Nebraska section, it ran along Cemetery Street and then crossed Delaware Street and ran along the western side of Cemetery Street. Crossing Hudson, it then followed along the dirt road extension of Cemetery Street. The roadbed then crossed Aylesworth Creek, the original stone bridge abutments still remaining. As we continue further along this dirt there is a ‘Y,’ the roadbed veered to the right of this ‘Y’ and made a large sweeping ‘S,’ until we come to another ‘Y’ at which the railroad went to the left. Originally [from 1846 to 1859] the road made a more sweeping turn at the first ‘Y’ but in 1859 with the extension of the road to Olyphant a new less sweeping approach was constructed. The original grade was destroyed later by a mining concern in the area. [emphasis added] As we move further along, the roadbed is very easy to follow, being that it is cleared of trees and shrubs. It traveled through the woods until it reached the pole line, at the sewage treatment plant, where it appeared for all to see on a rock shelf above and to the east of the present day Delaware & Hudson tracks. The road continued along this rock shelf, crossing the loaded track which ascended No. 5 Hill, [emphasis added] until it reached where Hill Street and the Delaware and Hudson tracks intersect. / Along this section of track it is very easy to see the gradual descent of the roadbed as it moved toward central Archbald. This section is also the original roadbed constructed in 1847 and after the close of the Gravity in 1899 was converted to a Locomotive road and was used to haul coal to the Powderly Breaker in Carbondale. / After the extension of the road to Olyphant, in 1859, the Light continued from Hill Street [emphasis added] crossing along the Eastern side of the present day Delaware & Hudson tracks, crossing the White Oak on its own bridge about 30 feet east of these tracks. After crossing the creek a siding was constructed to accommodate the station placed half way between Salem and Wayne Streets. The tracks then moved farther Eastward crossing Wayne Street, made a turn to the right and crossed the Locomotive tracks at the Pike Street crossing, cut directly through where the present Delaware & Hudson station stands and moved along the dirt road to the corner of Cherry and Monroe Streets. It passed directly through the center of this intersection and followed along Park Street. Park Street did not exist at this time and only came into existence, being built next to the railroad tracks in the late 1880’s. In order to keep the grade

a large bank of culm was made along Park Street and a bridge was constructed across Laurel Street. The bank and roadbed continued along the edge of Laurel Street field until it reached the Lackawanna river and C Plane_[baseball field on Laurel Street is the site]. Plane C was the first along the light track from the top of the Carbondale mountain and the cars were able to move non stop from the mountain top to C Plane. The foot of this plane was on the Eastern bank of the river and after passing under the O & W tracks near the base of that railroad's trestle, crossed the river on a slanted bridge and the cars were pulled to the head of the plane which was located about 1000 feet East of the intersection of Harrison and Delaware Streets just before the railroad bed crossed the dirt road leading to the Archbald Athletic Club Field. A portion of C plane can be seen ascending the hillside, where Delaware Street ends at the parking lot of Triangle Pipe and Tube Company. The remaining portion of the plane was filled in when the parking lot was constructed. This plane was originally run by a waterwheel powered by a canal running from White Oak Run parallel to the Lackawanna. The canal was abandoned in 1865 and a steam engine was placed at the Head of the plane. The canal was later filled in with earth, stone and cinders and the roadbed of the New York, Ontario and Western thereafter ran on its course. / Mr. James H. White an engineer on C Plane told of a frightening experience, that happened on C before the close of the railroad: "one afternoon while I was operating the last trip of a long train empty of cars [of empty cars], the headman signalled to me that the passenger train was in the foot and would be next to be drawn up. While the trip of empty cars was ascending a key in the crosshead on one of the engines broke thus putting that engine out of commission. I was standing between the engines, my hand on the throttle, when the piston came crashing through the cylinder head, breaking it into a number of pieces. / Any one who had had any experience with steam can realize the effect upon the nerves when ninety pounds' pressure is released through a five-inch pipe within a few inches of where he stands and how difficult it is to keep one's brains or feet under control. / I realized instantly that I must hold that trip at all hazards and I did so with the one engine while I was enveloped with steam. I knew that if the cars ran back

there was nothing to stop them from crashing into the passenger train at the foot. No traps to derail the cars could be used on the lower half of the plane on account of the bridge over the river. / The fireman, who was working at a vise bench near the door, made a hasty retreat from the steam filled room, thinking the boilers had exploded. / The headman, realizing that something had gone wrong in the engine room, hastened to the trip, and by setting all the brakes and placing a brace behind it, let me out of a most trying situation. / Mr. Pierce Butler, who had charge of the engines on the Gravity road was on the passenger train. On seeing the wreck he said, ‘You did well to hold that trip. It is something I have never seen done before under the like circumstances.—It was not until everything was over that I began to feel the effect of the strain nor will I ever forget that day.’ / After crossing the Archbald Athletic Club Field road the light track continued its descent, passing through the woods directly behind the ambulance headquarters on Delaware Street. It crossed Delaware Street just before reaching the parking lot North of Sanvik Steel, passed diagonally through the vacant lot next to Cesare’s Restaurant dividing it in half and crossed Main Street where it intersects with Kennedy Drive, then went directly through where the bank building and parking lot now stands. It is at this point that the ‘Buckhorn’ was constructed connecting the loaded and light tracks. The roadbed then ran in a southerly direction behind and parallel to the houses along Gravity Street. It continued straight through where State Street makes a corner, passed to the East of the apartments on State Street and followed the dirt road making another sweeping ‘S’ turn, in order to follow the terrain, and passed under D plane on the loaded track. After making the ‘S’ turn a portion of the roadbed no longer exists as it passed through the workings of the old Riverside Colliery. It appears again after crossing the New York, Ontario and Western spur track which goes to the Eynon section of the Borough. At this point the light track ran to the West side and next to the loaded track. After a short distance it again passed under the loaded track and traveled in a southeasterly direction through the woods and exited the borough about 1000 feet east of the loaded track. From there it continued to Olyphant where it ended.

More from Philbin/Centennial:

“The Line to Olyphant.

The opening of the mines south of Archbald made necessary the extension of the Gravity system farther south and the building of a return line to Carbondale and Honesdale. This was undertaken in 1858. In that year work on planes A, B, C, D, E, F, and G, and the short canal leading to the foot of plane C was begun. The work was finished and the planes were in operation in 1859. All the stone work, such as bridge abutments, engine beds and the foundation for the water wheel at plane C, was done by Godshall & Kirklin of Scranton, the stone being supplied by Richard Sweeney. It is said that there was no responsible bidder for the entire extension of the line so the work was let in small contracts to local builders. Thus, planes A and B were built by Kearney

and McLoughlin; the extension from the Delaware & Hudson mine at Archbald to the foot of plane C by Patrick Martin and William Gilgallon; plane C by Edward Carroll and his son, John, and plane D by James Gay. The track leading from plane C to plane D and from D back to plane B was laid by Daniel Moyles. [Archbald Centennial book, p. 26 and p. 30: the curved stretch of track between C plane and D plane, which connected the loaded and the light tracks, was known as the *buckhorn*.] The laborers employed on this work got 65 cents for a ten hour day and the stone cutters were considered well paid at \$1.25 per day. William H. Richmond of Carbondale, still living on Richmond Hill, Scranton, was the contractor who supplied the first cars used on this division.”

From the *Carbondale News*:

“The southbound or ‘light’ track was neither parallel to nor contiguous with the north-bound or ‘loaded’ track just described. It came down from Carbondale along the hillsides on the east side of the valley, staying east of the northbound track until Mayfield. There it crossed this track on a short viaduct, proceeding west of the northbound track until it reached a point near the foot of B Plane in lower Frogtown. Here it again crossed the ‘loaded’ track on a viaduct and continued south through the town, once again on a course that was east of the other track until it reached the riverside.

Later the steam railroad followed the right of way of this ‘light’ track of the Gravity system from the northern limits of the Borough to midtown for two miles until, just beyond Pike Street, the tracks criss-crossed at grade. The steam track was on a higher elevation with a moderately descending grade. In fact, the ‘light’ track was built on an incline all the way from Carbondale to the Pike Street crossover.

(Incidentally, after the Gravity Railroad was abandoned, a branch of the locomotive road was built between Powderly Breaker in South Carbondale and the Hill Street crossing in Archbald. This spur was laid on the foundation of the old ‘light’ track of the Gravity system.)

After the Pike Street crossing, the gravity railroad advanced in a southwesterly direction, crossing the river on a trestle and continuing southward up through the woods on C plane. Thus this area of woodland on South Mountain acquired the name C Bush.

Plane C did not go all the way to the summit of that hill. It stopped on a level east of the Keystone Shoe Factory on Dutch Hill. The track then continued from the head of the plane southwest to Main Street, crossing it about where the Eynon Road begins, known in those days as Daley’s Crossing. From there, the ‘light’ track made its way out of town through the Riverside Section, crossing the ‘loaded’ track a few more times in the process.” (*Carbondale News*, 01-10-2001, p. 7, full page article on Archbald to commemorate the 125th anniversary of Saint Thomas Aquinas church)”

Plane No. 21 "C"

--in downtown Archbald.

--Length of Plane: 1,146 feet long, (rise 78.19 feet)

--Level 21: 14, 214 feet long, (fall 171.59 feet long)

Installed in 1859 when the Gravity Railroad was extended to Olyphant, "C" was the first of two inclined planes in the light track between Carbondale and Olyphant (the second one was "F" at Peckville). By means of "C" plane, the empty cars were raised up "C" and then released on their journey to the Lackawanna River at Peckville.

Originally, the cars were pulled up this plane with power from a huge waterwheel near its foot. The waterwheel on Plane "C" was abandoned for steam power in 1865.

When the canal that powered the waterwheel at Plane C was abandoned, it was filled with earth and became the roadbed of the New York, Ontario and Western through downtown Archbald:

"The waterwheel at C Plane was powered by a canal which connected White Oak Creek to the Lackawanna River at a point where the river bends at the base of C Bush. When the change from water to steam power was made on Plane C, the canal was naturally abandoned. It was subsequently filled up with earth, stone and cinders, and the roadbed of the New York, Ontario and Western thereafter ran on its course." (*Carbondale News*, 01-10-2001, p. 7)

Here is the description of "C" from Philbin/Archbald Anniversary book:

"After the extension of the road to Olyphant, in 1859, the Light continued from Hill Street crossing along the Eastern side of the present day Delaware & Hudson tracks, crossing the White Oak on its own bridge about 30 feet east of these tracks. After crossing the creek a siding was constructed to accommodate the station placed half way between Salem and Wayne Streets. The tracks then moved farther Eastward crossing Wayne Street, made a turn to the right and crossed the Locomotive tracks at the Pike Street crossing, cut directly through where the present Delaware & Hudson station stands and moved along the dirt road to the corner of Cherry and Monroe Streets. It passed directly through the center of this intersection and followed along Park Street. Park Street did not exist at this time and only came into existence, being built next to the

railroad tracks in the late 1880's. In order to keep the grade a large bank of culm was made along Park Street and a bridge was constructed across Laurel Street. The bank and roadbed continued along the edge of Laurel Street field until it reached the Lackawanna river and C Plane. Plane C was the first along the light track from the top of the Carbondale mountain and the cars were able to move non stop from the mountain top to C Plane. The foot of this plane was on the Eastern bank of the river and after passing under the O & W tracks near the base of that railroad's trestle, crossed the river on a slanted bridge and the cars were pulled to the head of the plane which was located about 1000 feet East of the intersection of Harrison and Delaware Streets just before the railroad bed crossed the dirt road leading to the Archbald Athletic Club Field. A portion of C plane can be seen ascending the hillside, where Delaware Street ends at the parking lot of Triangle Pipe and Tube Company. The remaining portion of the plane was filled in when the parking lot was constructed. This plane was originally run by a waterwheel powered by a canal running from White Oak Run parallel to the Lackawanna. The canal was abandoned in 1865 and a steam engine was placed at the Head of the plane. The canal was later filled in with earth, stone and cinders and the roadbed of the New York, Ontario and Western thereafter ran on its course. / Mr. James H. White an engineer on C Plane told of a frightening experience, that happened on C before the close of the railroad: "one afternoon while I was operating the last trip of a long train empty of cars [of empty cars], the headman signalled to me that the passenger train was in the foot and would be next to be drawn up. While the trip of empty cars was ascending a key in the crosshead on one of the engines broke thus putting that engine out of commission. I was standing between the engines, my hand on the throttle, when the piston came crashing through the cylinder head, breaking it into a number of pieces. / Any one who had had any experience with steam can realize the effect upon the nerves when ninety pounds' pressure is released through a five-inch pipe within a few inches of where he stands and how difficult it is to keep one's brains or feet under control. / I realized instantly that I must hold that trip at all hazards and I did so with the one engine while was enveloped with steam. I knew that if the cars ran back there was nothing to stop them from crashing into the passenger train at the foot. No traps to derail the cars could be used on the lower half of the plane on account of the bridge over the river. / The fireman, who was working at a vise bench near the door, made a hasty retreat from the steam filled room, thinking the boilers had exploded. / The headman, realizing that something had gone wrong in the engine room, hastened to the trip, and by setting all the brakes and placing a brace behind it, let me out of a most trying situation. / Mr. Pierce Butler, who had charge of the engines on the Gravity road was on the passenger train. On seeing the wreck he said, 'You did well to hold that trip. It is something I have never seen done before under the like circumstances.—It was not until everything was over that I began to feel the effect of the strain nor will I ever forget that day.' / After crossing the Archbald Athletic Club Field road the light track continued its descent, passing through the woods directly behind the ambulance headquarters on Delaware Street. It crossed Delaware Street just before reaching the parking lot North of Sanvik Steel, passed diagonally through the vacant lot next to Cesare's Restaurant

dividing it in half and crossed Main Street where it intersects with Kennedy Drive, then went directly through where the bank building and parking lot now stands. It is at this point that the 'Buckhorn' was constructed connecting the loaded and light tracks. The roadbed then ran in a southerly direction behind and parallel to the house along Gravity Street. It continued straight through where State Street makes a corner, passed to the East of the apartments on State Street and followed the dirt road making another sweeping 'S' turn, in order to follow the terrain, and passed under D plane on the loaded track. After making the 'S' turn a portion of the roadbed no longer exists as it passed through the workings of the old Riverside Colliery. It appears again after crossing the New York, Ontario and Western spur track which goes to the Eynon section of the Borough. At this point the light track ran to the West side and next to the loaded track. After a short distance it again passed under the loaded track and traveled in a southeasterly direction through the woods and exited the borough about 1000 feet east of the loaded track. From there it continued to Olyphant where it ended."

The empties, still under forward momentum/gravity derived from their descent from the head of "C," continued down the valley to the foot of Plane 22 at the Lackawanna at Peckville (also called Peck's Crossing; Samuel Peck and his brother has 2 mills there at one time).

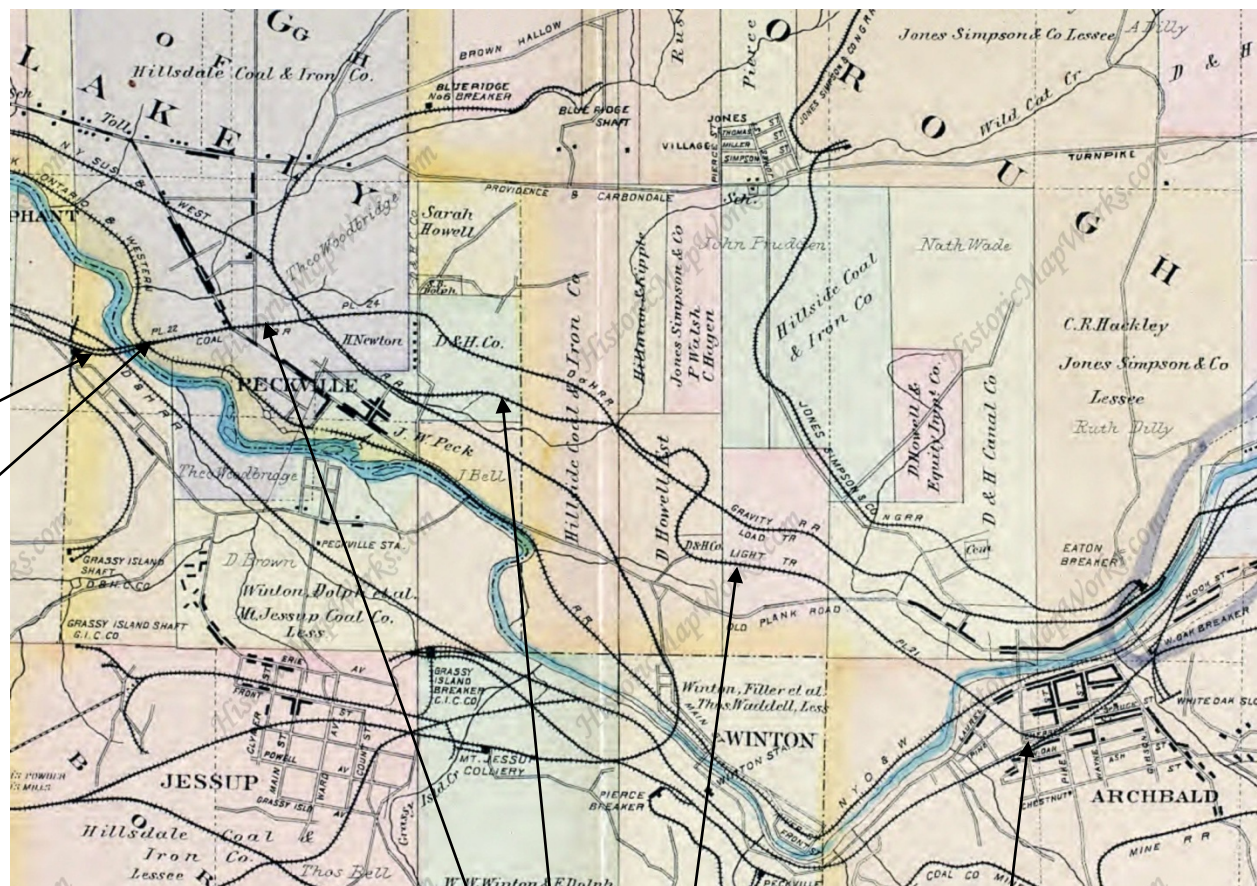
Engineers at the head of Plane No. 21:

"No. 21, Archbald, William Muir, engineer. December 24, engine and boiler house burned down at 1 a. m. Started running cars morning of December 26, Mr. Muir having been appointed assistant master mechanic, Charles Bonner was made engineer." (*Joslin/Davies*)

More about Charles Bonner:

"CHARLES BONNER, a native of New York city, when a boy of fifteen shipped in the coasting service, and spent five years in that and the whaling service, visiting all points of prominence in the Pacific. He then engaged as engineer on the steamer 'Alabama,' of the Savannah line. He married Julia D. Prellis, of Lebanon, Pa., by whom he had five sons, four of whom are living. She died August 14th, 1877. He married in May, 1879, Miss Bell Moffat, of Carbondale. Since 1868 he has been engineer at plane C on the gravity road, residing in Peckville." (1880, p. 470B)

Plane 21 was long, 382+ yards; Level 21 was also long, 2.7+ miles. Both are shown on the detail from the 1894 Baist map, Plate 11, that is given below:



Ed Casey (May 13, 2013) erroneously believes that the inclined planes on the Gravity Railroad had turnouts as late as 1859, when the light track was extended south to Valley Junction. He says that passengers on the Gravity south of Archbald were always glad when they got beyond the bridge on Plane C because if, for some reason, the cars started to go backward and went into a turnout, the cars and their passengers would be hurled into the Lackawanna River. There were never any turnouts on Plane C. Turnouts existed only on the planes in the 1829 configuration. When the planes were double-tracked in the 1845 configuration and thereafter, the turn outs were all removed, as there was no longer any need for them.

Accidents, Facts about the Plane, Daily Life (Plane and Level 21)

Vandalism at Plane C in 1862:

“By Telegraph. / From Archbald. / Saturday, 7-30 A.M. / The rope of Plane C, was cut in four places last night. No work at Archbald today.” (*Carbondale Advance*, October 11, 1862, p. 3)

This vandalism was surely related to the “enrollment” difficulties with regard to draft registration in Archbald.

“Resistance to the Enrollment in Archbald. / **ITS LAMENTABLE EFFECTS.** / We have melancholy news from Archbald. A death, we learn, has resulted from a renewed effort to take the enrollment at that place. We published two weeks since, from the *Luzerne Union*, an account of the manner in which the enrolling officer and four or five assistants had been driven from the town bloody and bruised. We have heard nothing subsequent until yesterday. We learned about noon that the enrolling officers had arrived upon the ground with a larger posse, unarmed, for the purpose of taking the enrollment peaceably, if they could, but with a company of militia in attendance, *armed*, to execute the law forcibly if they must. During the afternoon we are informed that six women were arrested for disturbing the peace and sent to jail at Wilkes-Barre. No serious difficulty, however, occurred until the officers were returning from their day’s business to the Hotel. A riot seems then to have occurred. We have not received the particulars sufficiently definite and accurate for publication. But, as the result, it is reported that one man was killed and five wounded. / Great credit is awarded to Rev. Mr. McSwiggan, P. P., and some other excellent citizens of the place, for their efforts to preserve peace and prevent opposition to the laws, and thus prevent the disaster and disgrace that has befallen them. / **“By Telegraph. / From Archbald.** / Saturday, 7-30 A.M. / The rope of Plane C, was cut in four places last night. No work at Archbald today.” / **Later.** / 9:30 A.M. / Casualties of last night are as follows: Patrick Gilmartin killed, received about ten shots. His wife was badly wounded. Patrick Colegan shot thro’ the hand.—Michael Caffrey severely wounded with three balls, and John Caffrey with two balls. Several others slightly wounded. None of the Militia were hurt.” (*Carbondale Advance*, October 11, 1862, p. 3)

More on Patrick Gilmartin, who was killed during the draft riot in Archbald:

"PATRICK GILMARTIN, born in Ross, County Mayo, Ireland, in 1808, was one of the pioneers of the borough of Archbald. In 1836 he emigrated to Maryland. He revisited Ireland the following year and married Ellen Cook, of Ross, in 1838. He returned to America in 1840, becoming a contractor on public works, and in the pursuit of his business settled in Archbald in 1845, erecting the first house built on the east side of the Lackawanna river, which is still the residence of his widow and her sons. Mr. Gilmartin was killed by a volley fired by a marshal's posse during a draft riot on the 18th of October, 1862, while passing from his house to his store. He was a merchant from 1850 up to the time of his death. He left four sons and two daughters." (1880, p. 464B)

Sill more on Patrick Gilmartin:

"During the enrollment for the first draft ordered by President Lincoln, in 1862, dissatisfaction arose among the foreign born population [in Archbald, in Blakely township, and elsewhere], and an attack was made upon the enrolling officer at Archbald that drove him from his work. A posse summoned to support him visited the place October 10th, 1862, and on being attacked by a mob of women and boys, who followed the party through River into Bridge street, fired a volley that, as is usual in such cases, involved the innocent with the guilty. Patrick Gilmartin, an old and respected merchant, fell dead with five balls in his breast, and four other persons were wounded. This decisive act rendered further violence unnecessary." (1880, p. 462)

Engine house on Plane C burns, 1867:

"The engine house at Plane C on the Del. & Hud. Canal Co.'s railroad, this side of Archbald, was burned last Sunday night a week." (*Carbondale Advance*, Saturday, January 5, 1867, p. 2)

John Murray in bad accident at the foot of Plane No.21:

December 4, 1875: "John Murray, 11 or 12 years old, had the flesh badly cut on one leg at foot of plane No. 21, near Archbald." (*PA Auditor General Report for 1875*, p. 232)

Jacob Shaffer killed while walking the light track near Peckville:

December 31, 1875: "Jacob Shaffer, walking on light track near Peckville, was run over and instantly killed." (*PA Auditor General Report for 1875*, p. 232)

A recollection of the old canal that powered the water wheel on Plane No.21:

"SOME OLD LAND MARKS. / Relics of the Primitive Methods of 'Rapid Transit,' Up the Planes. / The suspension of the Gravity railroad recalls some of the things that have become antiquities in this pushing modern world. It is a well-known fact that the Gravity was built about seventy years ago. This was before the age of steam dawned upon these realms [the author of this article should study the history of the nineteenth century more carefully], and for nearly two generations the cars were pulled up the long inclined planes [some of them] by water power. At Archbald at the foot of old plane C, stands an old water wheel. It was a contemporary of a generation that now sleeps on the eastern and western hills. That wheel was the machine that pulled the cars up the long incline of C plane. / A canal connecting with White Oak creek at its junction with the Lackawanna furnished the current that moved the wheel. It took half an hour for a single car to be pulled up the long plane. During the thirsty days of mid-summer when creek and river went dry the cars didn't climb the plane, and the hands were off until a good shower came. The wheel still remains, but the canal was filled up and now forms the bed of the Ontario and Western railroad, but the aged wheel still remains. / The old waterwheel and the canal were the ghostly haunts of these ancient days. The troubled spirits walked by the untroubled stream of the canal and along the waters in the sluggish river, while the night owls hooted at them from the dense dark grove that once stood upon the treeless hillside of the present day. Many a shade from the hidden land there told his troubles to the frightened wayfarer from out the shadows cast by the midnight moon. / But the axe of the railroad builder has exercised

[perhaps 'exorcised' was intended] the spirits and the wild shriek of the steam engine has frightened away the grim gaunt ghosts of the good old days. / Carbondale still has a canal that sent cars up Davis' plane, but the shades—if they ever existed there—have all withered and blown away.” (clipping from the Scranton *Truth*, dated Saturday, October 29, 1898, in one of the Gritman scrapbooks)

Given below is a photo, c. 1866, of Archbald, together with its caption, in Philip Ruth's book on page 31. The canal to supply water for No. 21 waterwheel is seen to the left of the Lackawanna River as it passes through Archbald.

The canal from the Lackawanna River that provided water for the waterwheel at Plane No. 21 when that plane was first installed.



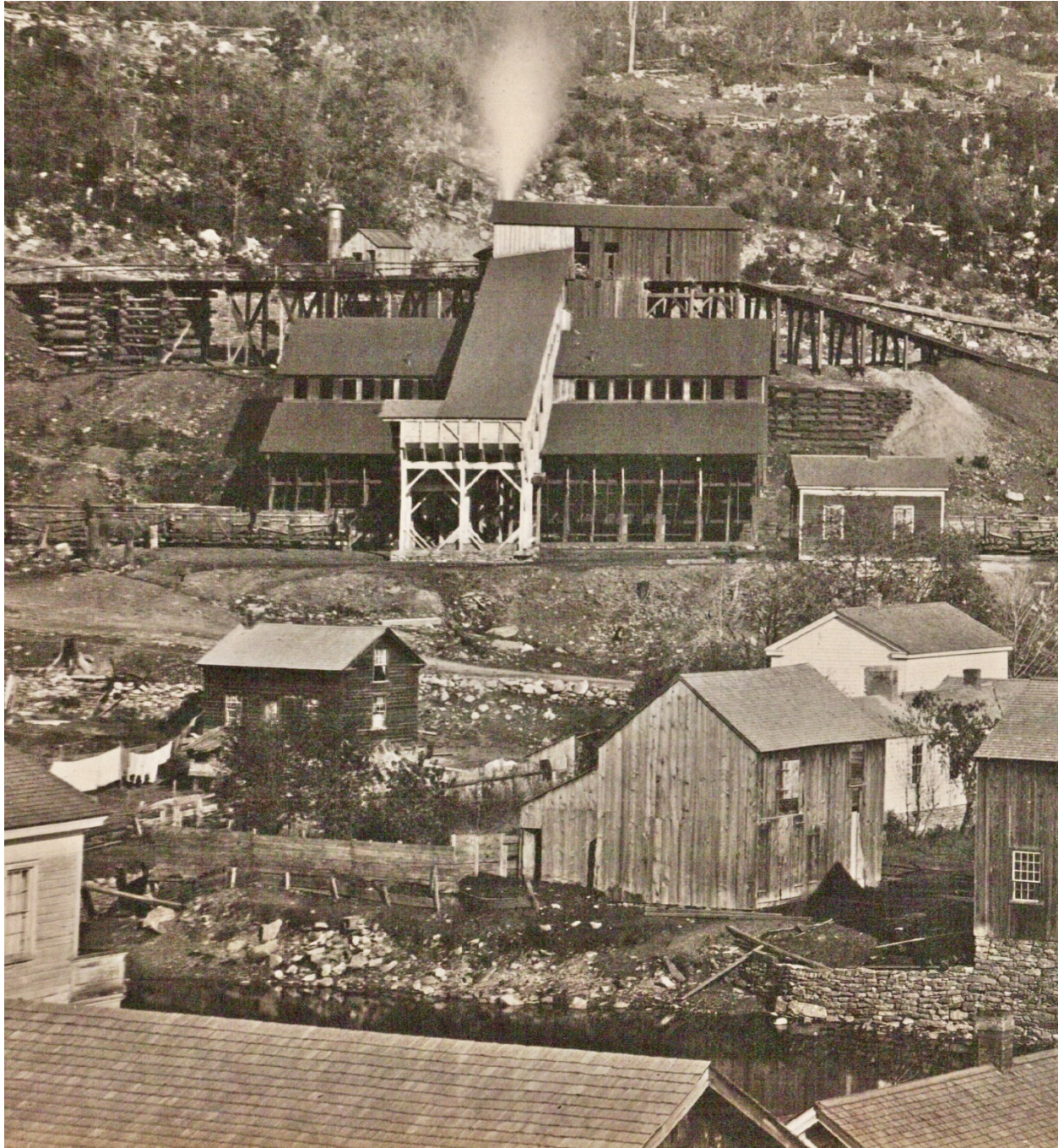
Two decades after the 1846 extension of the D&H Gravity down the valley of the Lackawanna River to newly-opened mines around the mouth of White Oak Run, the thriving village called Archbald had grown up around what was once "the end of the line." Part of the breaker associated with the White Oak Mine is visible in the left foreground of this view. In the center is a canal built to supply water to the water-wheel-powered hoisting engine on Plane C (later No. 21) of the D&H Gravity's light track.

The breaker in the photo shown above and below is the Birdsey Breaker (on the east side of the Lackawanna River in Archbald). Two views of that breaker are given below, one of them a close up. This is a Johnson photograph, that was taken by Johnson in 1860. The original of this photograph is in the archives of the Wayne County Historical Society.

BIRDSEY BREAKER,
(ARCHBALD,)
DEL. & HUDSON CANAL CO.



Gilmartin Street bridge over
the Lackawanna River at
Archbald



White Oak Colliery/Birdseye Breaker:

"The White Oak Colliery—This drift was opened by the Delaware and Hudson Canal Company in 1845, and operated by them until 1859, when it was sold to judge Birdseye, of New York city, and operated under lease successively by H. Jenkins,, William Nichols, Robert Salton and Patrick Kearney. After the building of the breaker, in 1860, work was suspended six months, and in 1861 Hosie & Jadwin leased the property, working until 1863, when John Jermyn became its operator for two years, succeeded by the Boston and Lackawanna Coal Company, who purchased the land of Birdseye and worked the mine until 1870. Then, on their bankruptcy, the Delaware and Hudson again came into possession and have operated it since. The breaker has a capacity of 650 tons daily. The number of men and boys employed is 230. One breaker engine supplies the power. The drifts are worked to a distance of one and one-half miles from the entrance, which is about 800 feet from the breaker. Thirty-eight mules are in use. In 1880 a shaft was being sunk to a depth of 80 feet, at a distance of one-third mile south of the breaker. The outside foreman is Thomas Law; inside foreman, Hugh Jones; and D. J. Gilmartin and Thomas Hunter are weighmasters. The average daily production is about equal to the capacity of the breaker. John Hosie was the first foreman, succeeded by James Liddle, then by William Law, and in 1854 by Edward Jones, who had charge of the works until 1858. The vein of coal worked is the Archbald, with an average depth of ten feet." (1880, p. 463)

John Jermyn's association with the Birdseye Breaker in Archbald is described by Clark (p. 205) as follows:

"... in the year 1859, he [John Jermyn] entered into a contract with Judson Clark, esq., for the sinking of a slope and mining the coal from the lands of the said Clark, situated on the Abington turnpike, and near the mines of the New York and Pennsylvania Coal Company. Here he was engaged for some two years [up to 1861], when Judson Clark having died, he together with a Mr. Wells and Clark, of Carbondale, Pa., became the proprietor of the mines under a lease with the estate, under the firm name of Jermyn, Wells & Co. This lease continued for three years [up to 1864], when the mining of the coal at this point was abandoned. / Always on the alert for an opening, and with a wonderfully penetrating mind, we find Mr. Jermyn always looking in advance, and before he had closed his engagement at one point having another in waiting for him. Thus, before his lease expired with the Judson Clark estate [before 1864] he had effected another with Judge Birdseye, of New York city, for the working of his mines at Archbald, Pa., two miles up the valley from the scene of last operations. These mines had been badly managed for many years, and their reputation was such that the proprietor found it difficult to operate them successfully. This Mr. Jermyn soon remedied however, and he had not been in possession of the mines more than three years when the proprietor was enabled to sell his mines and coal lands to the Boston and Lackawanna Coal Company at a very large profit."

Four White Oak Colliery employees: John Beck, James Mack, Thomas F. Mullen, and Anthony O'Hora:

"JOHN BECK came from Germany in 1857, married Eliza Shafler and has four children. He is a trustee of the German Evangelical church [of Archbald]. He has charge of the car shop at the White Oak colliery." (1880, pp. 464-65A)

"JAMES MACK, a native of Ireland, came from Manchester, England, to this place [Archbald] in 1862. He married Bridget, daughter of Francis O'Boyle, of county Mayo, Ireland, and has five children. . . Michael is a miner and James P. a blacksmith in the employ of the White Oak colliery. . ." (1880, p. 464C)

"THOMAS F. MULLEN, born in Honesdale, Pa., is the youngest son of James Mullen, of Ireland, who settled in Honesdale in 1844. He has been in the employ of the White Oak colliery as blacksmith since 1872, and served on the Archbald police force in 1877." (1880, p. 464C)

"ANTHONY O'HORA early settled at Archbald, and has for many years been a miner at the White Oak colliery. He has eight children living. Anthony, jr., the youngest son, works at his father's occupation, and with five others of the children resides with his parents." (1880, pp. 464C-D)

5932

Plane No 22 “F”, Peckville

--downtown Peckville

--Length of Plane: 418 feet, (rise 40 feet)

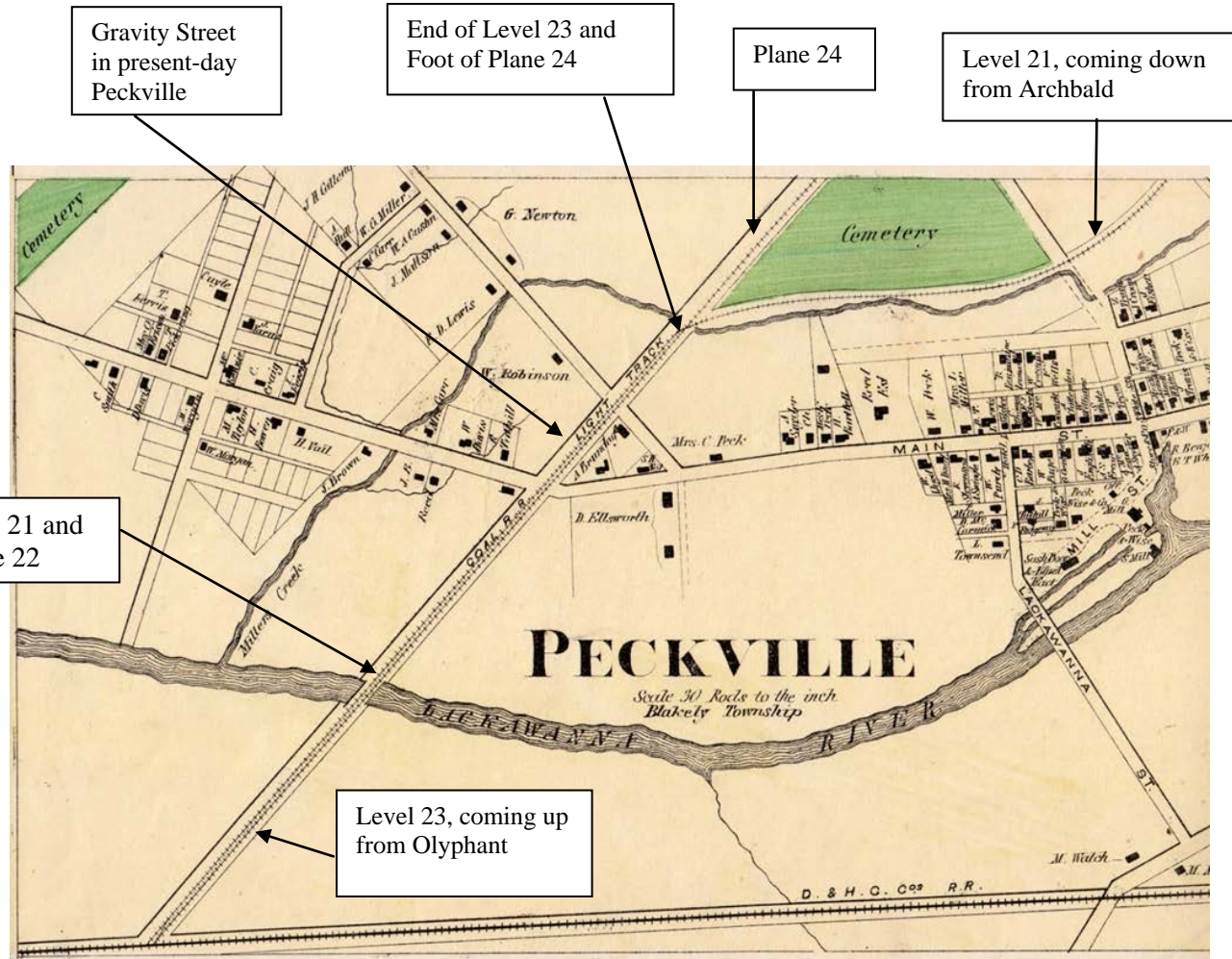
--Level 22: 8,860 feet long, (fall 81.30 feet)

Engineers at the head of the plane:

No. 22, near Peckville, George W. Thomas engineer.” (*Joslin/Davies*)

Peckville was named after Samuel Peck, the founder of the Peck Lumber Company (which later became a subsidiary of United States Lumber Company). He had a son John Peck, who was a bridge builder for the DL&W, and who lived to the age of 95. Byron Peck, a son of John Peck, was the third youngest in a family of six sons and two daughters. He was born in Hyde Park, Scranton, on March 7, 1857, and started work on the D&H Gravity Railroad in January 1877, and worked, without interruption, for the D&H until March 1924—that’s 48 years and two months. His first work on the Gravity Railroad was with Abner Amey, a boss runner on coal shipments from Peckville to Carbondale. In January 1883, he began working on the D&H valley road. He married Minnie M. Wonnacott from Waymart.

Here is the view of downtown Peckville from the *D. G. Beers* 1873 map volume, p. 37:



Notice that the Light Track and the Loaded Track surround, as it were, the cemetery at the top right on this map, the Light Track coming down from the North on the bottom side of the cemetery, and the Loaded Track (Plane No. 24) to the left of the cemetery.

When the empty cars reached the Lackawanna River, they were at the foot of Plane 22, also known as “F.” At that point the empties were pulled up the 418-foot long Plane 22, which carried them across the Lackawanna River (the inclined plane was the bridge).

The bridge over which they were pulled up over the river was, at the time when D. G. Beers was published in 1873 (the D. G. Beers maps are always very reliable when it comes to details), the same bridge down which the loaded cars descended on Level 23, on their own track, into Peckville.

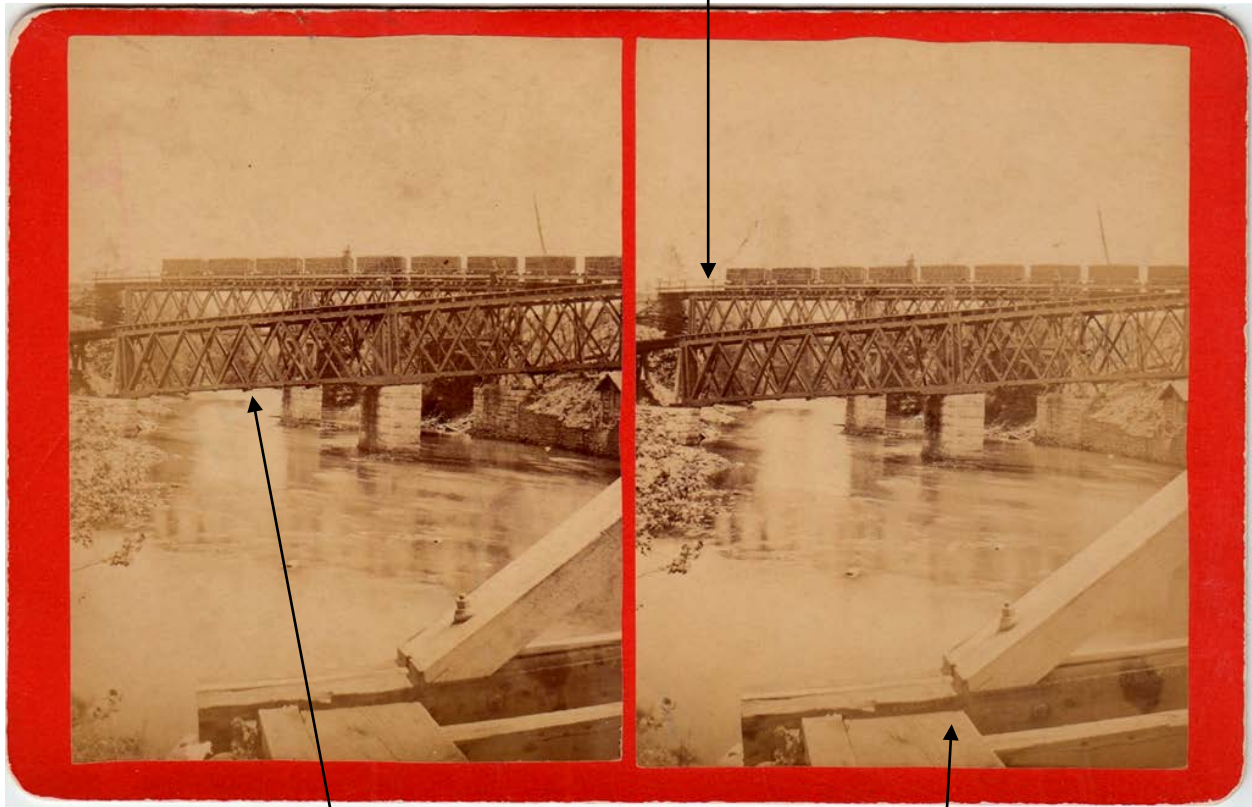
That means that this bridge over the Lackawanna River, as late as 1873 when D. G. Beers was done, served as upgrade Plane 22 (light track) and downgrade (loaded track) on the long level between the head of 23 and the foot of 24. That level approached from the South and went directly down the level/the bridge across the river. The downgrade speed of those loaded cars was controlled by the car runners, the cars being “run on the brake.”

We have not seen a photograph of the 1873 bridge as a whole over the Lackawanna here (the bridge indicated on the D. G. Beers map of 1873), but portions of that bridge can be seen in two well known photographs. First, in the Johnson photograph of Plane 22/Level 23 (see pages 305, 306, and 307) we see the upper portion of Plane 22/Level 23, which was the bridge across the Lackawanna River at this point from 1859 up to at least 1873. Second, in the 1879 photograph by Hensel of the D&H bridges across the Lackawanna River at Peckville. In this Hensel view, we see three bridges, two of iron and one of wood.

The two of iron are the two bridges that were built here over the Lackawanna River between 1873 and 1879. The up-stream bridge was for the loaded track, and the down-stream bridge was for the light track. When Hensel took this photograph he was standing on yet another bridge, the original bridge of wood across the Lackawanna River at Peckville, the bridge over which passed both the loaded and light tracks from 1859 to at least 1873, and which was no longer being used for railroad purposes in 1879.

Here then is Hensel's 1879 view of the three D&H bridges across the Lackawanna River at Peckville: the iron bridge for Level 23, the iron bridge for Plane 22, and a portion of the original wooden D&H bridge at this site for Plane 22 and Level 23 across the Lackawanna River.

Level 23 bridge (loaded track)
over the Lackawanna River at
Peckville



Plane 22 / bridge (light track)
over the Lackawanna River at Peckville.

The original wooden bridge for both
loaded and light tracks across the
Lackawanna River at Peckville. It
appears that Hensel was standing on
this bridge when he took this
photograph.

Here is a view of the engine house at the head of Plane 22. This is a photograph by Johnson (Scranton, PA, 1860), the original of which is in the archives of the Wayne County Historical Society.

INCLINED PLANE, T,
DEL. & HUDSON CANAL CO.

Plane No. 22 was a bridge across the Lackawanna River at Peckville. A portion of this plane/bridge can be seen in the immediate foreground of the Hensel photograph given on page 304.



The D&H steam line, the Valley Road, passed under this inclined plane, between the terraced stone abutment and the pier at the far right.

This stone abutment still stands today.

Here is a close up of the left side of the Johnson photograph from 1860. Under construction is the bridge that would ultimately carry the light track across the Lackawanna River at Peckville. A separate bridge for the loaded track (Level 23) across the Lackawanna River was built at the same time (upstream from the light track bridge). These two new bridges were of iron. The original bridge at this site (for both the loaded and the light tracks) was of wood.



Here under construction, the new bridge for the light track (Plane No. 22) across the Lackawanna River at Peckville.

Engine House on Plane No 22 “F” as it appeared in 1860:



The plane was 418 feet long. It, and Plane No. 21 “C” in Archbald, provided the necessary lift to get the empties back to Valley Junction. The empties went down the 6-mile level from Carbondale to Archbald by gravity. At Archbald they were lifted up Plane 21, which allowed them to coast to the Lackawanna River at Peckville (on the west bank of which was the foot of Plane 22). They were again lifted up (over the river and up a short hill) by an inclined plane, No. 22 “F,” and then coasted all the way to Valley Junction.

This photograph, in the D&H Collection, is used by Shaughnessy on page 57 and is dated there as 1860. In that year, the Valley Road from Carbondale to Providence, the locomotive road, was

opened. Traffic on the Valley Road, in moving south, after passing the Peckville D&H depot on the Olyphant side of the Lackawanna River (near the Olyphant end of the Lackawanna Street bridge), passed under Plane 22 and Level 23.

Two cut stone abutments are still to be seen today on the south side of the Lackawanna River between the site of the Engine House at Plane 22 and the D&H steam line. These abutments supported D&H bridges across the Lackawanna River at this point, in all probability, one for the loaded track and one for the light track. The light track bridge was downstream from the loaded track bridge.

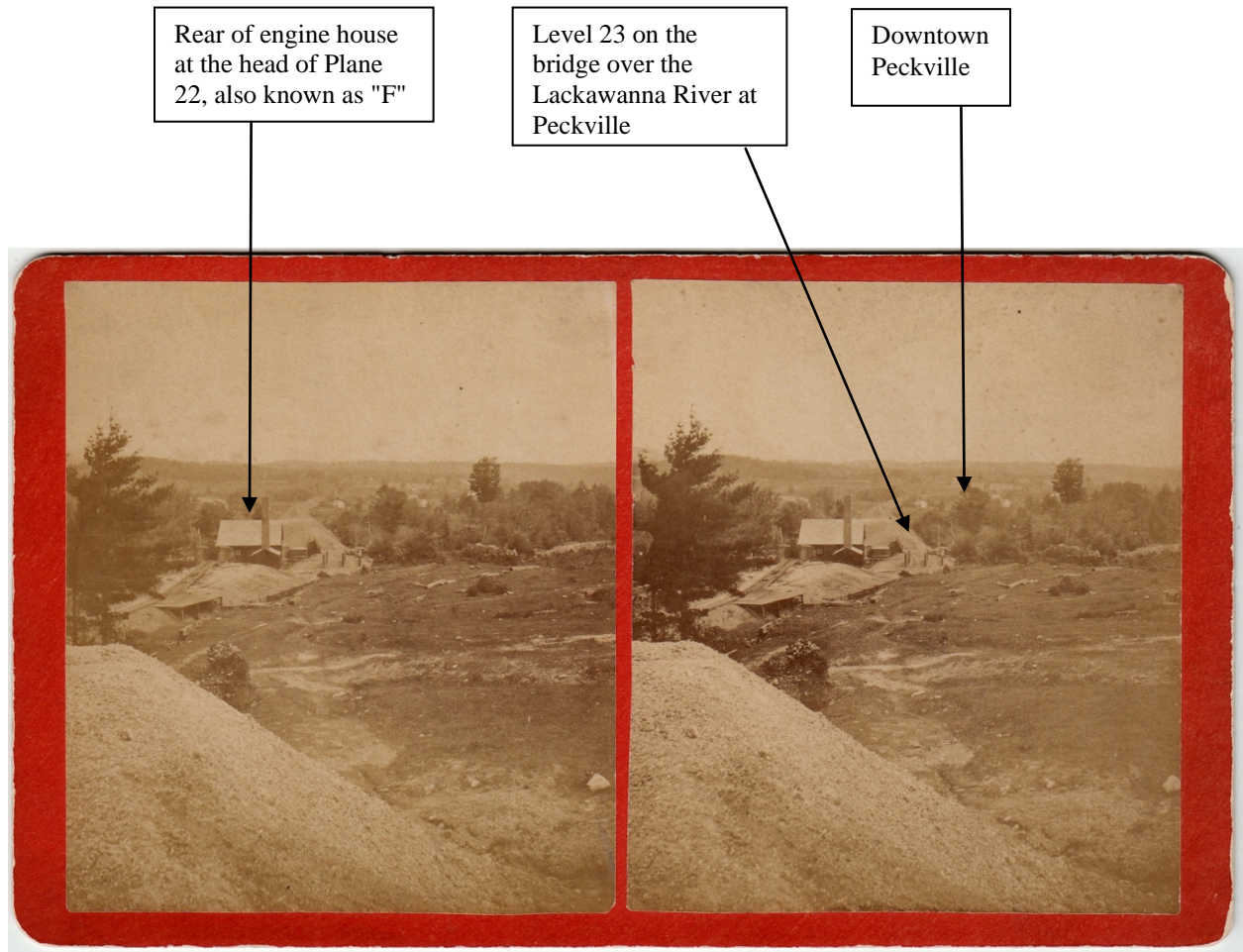
In the photograph given below, taken on 07-12-2011 by the author, we see the present steam line to Scranton and some of the stone piers for the D&H bridges across the Lackawanna River at Peckville in the nineteenth century.



By 1860 (when the Johnson photograph was taken), it appears that the D&H had decided to provide separate bridges for both the loaded and light tracks at Peckville—which meant that the D&H could then ship significantly more coal up the valley than it could have shipped previously.

In the view given below we are looking towards Peckville from the Grassy Island Breaker. We are looking at the back of the Engine House for Plane F. The track that curves to the right of the engine house is Level 23 as it crosses the Lackawanna River and descends to the foot of Plane E in downtown Peckville. In the middle of the photograph in the far distance, Plane E can be seen.

Hensel No. 1130: [Looking towards Peckville from the Grassy Island Breaker]



A very interesting article (“ENGINES WITH A HISTORY./ **They are Almost as Old as the Gravity Road Itself.**”) about the stationary engines on Plane 22 was published in the *Carbondale Leader* on Tuesday, March 20, 1894. Here is the complete text of that article, which is filled with wonderful facts about the Gravity system:

“There was brought to the shop today the oldest pair of engines on the Delaware & Hudson gravity railroad. They were taken out at No. 22 near Peckville last Friday to give place to new ones built at the Carbondale shops and put in on Saturday, 17th inst. /These old engines have a history, and they could tell an interesting story could they talk. They can hardly be called stationary engines for they have been used at three different planes during their forty-eight years’

service. They were built at the shops of William Burden, Brooklyn, N. Y., and show the best of workmanship. They were erected first at old No. 5 [1843 Configuration] on the summit between Carbondale and Waymart when the road was rebuilt over the mountain. This road has been changed three times. The first road had five planes to the summit, the fifth one being located south of No. 4 reservoir. The second road had five planes also, the fifth being located northeast of No. 4 reservoir. It was at this plane that these engines were used new from the shops in Brooklyn in 1846. William Ball was master mechanic at that time. Orlando Foster was the first engineer and run them until the present road with eight planes and new engines was built in 1858 when he was transferred to No. 8 the summit engine on the new road. The old engines were removed to the shop and one was injured in the fire that burned the old shops. When the road was extended down the valley they were put in at No. 25 in 1858. Townsend Poore was master mechanic and Winsor Foster a son of Orlando was made engineer. In 1862 these engines were removed [from 25] to give place for larger engines, and put in at No. 22 on the light track [where they were used from 1862 until 1894*], and George W. Thomas made engineer, who is still in charge and will run the new engines [put in in 1894]. Eli Birs is at this time assistant master mechanic and had charge of this work.”

*The two old engines were probably moved to No. 22 because it was on the light track. More powerful engines were put in at No. 25 (on the loaded track) in 1862, when these two “old” (and possibly not as powerful) engines were put in at No. 22 (which pulled empties up the 418-foot plane).

Engineers at the head of Plane No. 22:

“No. 22, near Peckville, George W. Thomas engineer.” (*Joslin/Davies*)

Once the cars passed over the head of Plane 22 they began their descent into Olyphant on the level between the head of 22 and the foot of Plane 23, also known as “G” plane.

Level No. 22

Level No. 22, which was 8,860 feet long, descended, with a total fall of 81.30 feet, along the Eastern side of the D&H locomotive tracks to the foot of Plane No. 23 at Olyphant/Valley Junction. The present-day Burke By-Pass in downtown Olyphant was built on a portion of Level 22.

In the view shown below from the D. G. Beers map volume, we see the light track heading south through Olyphant (on the route of the present-day Burke By-Pass; note that there are two breakers in downtown Olyphant), and Level 23, heading north.

This is the site shown in the photograph given below. In the photo, we are looking South as a passenger train moves north on the D&H steam line, Valley Road.



Level 22, the light track

Level 23 (loaded track) through Olyphant

Possible photo identification:

Empty Gravity coal cars descending through Olyphant on Level 22 and the D&H breaker there, where some of them were filled with coal and taken on the light track to the foot of Plane 23 for shipment to market.



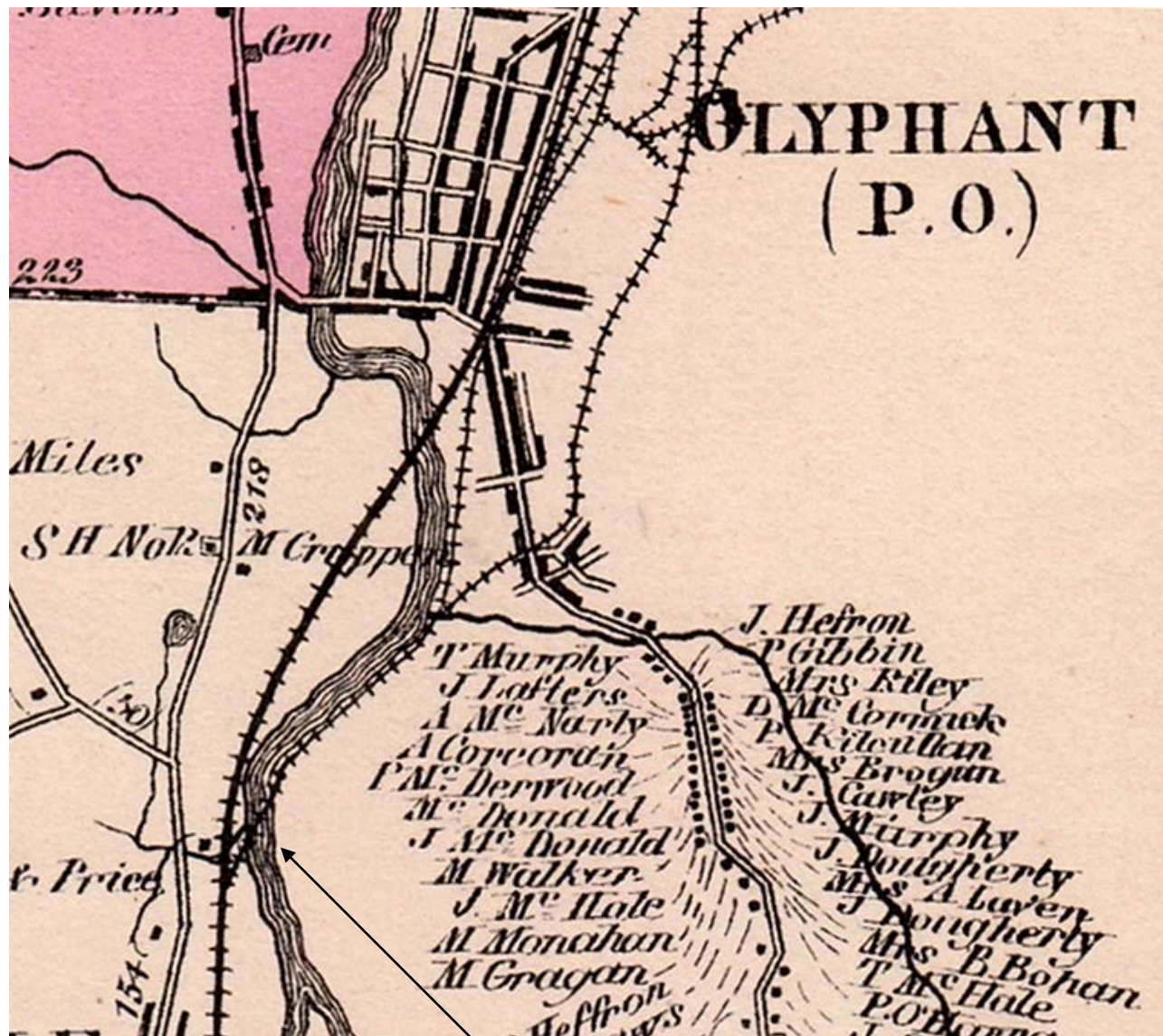
"A northbound passenger train moves on multi-gauge trackage..." says Shaughnessy. Yes, I agree.

For additional data on this photograph, see the volume in this series on the 1829 configuration, p. 113.

This photograph (with specific site not identified) appears in *Shaughnessy* (p. 62, "A northbound passenger train moves on multigauge trackage near Dickson, on the line between Scranton and Carbondale"), in *Osterberg* (p. 30, "A locomotive moves along the tracks outside Carbondale"), and in the D&H's *Track and Roadway* (p. 87, "Steam Road, Scranton to Carbondale"). The photograph (printed in reverse in all three of those volumes, but shown here correctly) was taken, it is our contention, in downtown Olyphant.

[illegible]

This view is an enlargement of the view shown immediately above.



Gravity Railroad bridge over Lackawanna River below Olyphant

In the view given below, we see the Gravity Railroad bridge below Olyphant (erected in 1859 or 1860) for the Gravity tracks from the foot of Plane 23, over the Lackawanna River, to connect with the D&H steam line tracks on the West side of the Lackawanna River. This is a photograph by Johnson (Scranton, PA), dated 1860.

BRIDGE NEAR OLYPHANT,
DEL. & HUDSON CANAL CO.



A print of the photo given above is in the archives of the Minisink Valley Historical Society. In the Osterberg volume, this bridge is incorrectly identified, on p. 14, as being “located on the long descending plane near Prompton.”

The loaded and light tracks came together at the Foot of G. From that point there was a short track, running south and across the Lackawanna River, to the steam line on the west side of the Lackawanna River. The bridge shown above was on that short piece of track from the foot of G to the junction (Valley Junction) of the Gravity tracks with the steam line tracks. This photograph was taken by “Johnson, Scranton, Pa.,” in 1860. An original print of this Johnson photograph is in the archives of the Wayne County Historical Society and it is from that original that we have produced the copy given here.

The bridge shown above remained in service until 1883, when it was replaced by an iron one made of T-rail in Mr. Wyllie’s blacksmith shop in Carbondale. This we learned from the following notice published in the *Carbondale Leader* in April 1883:

“The old wooden bridge at Valley Junction has been replaced by an iron one made of T rail. The new bridge was made in Mr. Wyllie’s blacksmith shop here [Carbondale], and is a model in its

way. It was placed in position by the bridge carpenters last week." (*Carbondale Leader*, April 20, 1883, p. 3)

View of Olyphant, on the following page, from *D. G. Beers*, p. 35:

In this view, we see the double-tracked light track coming down (double-tracked [in 1873], on the east side of the Lackawanna River and intersecting the loaded track (Plane 23, G). The foot of the plane is to the extreme left. The Eddy Creek Breaker and tracks to the Eddy Brook Shaft and then to the D&H loaded track are shown below Plane 23. The track to the connection/junction of the Gravity system and the locomotive system (at Valley Junction in Priceville) is not shown here.

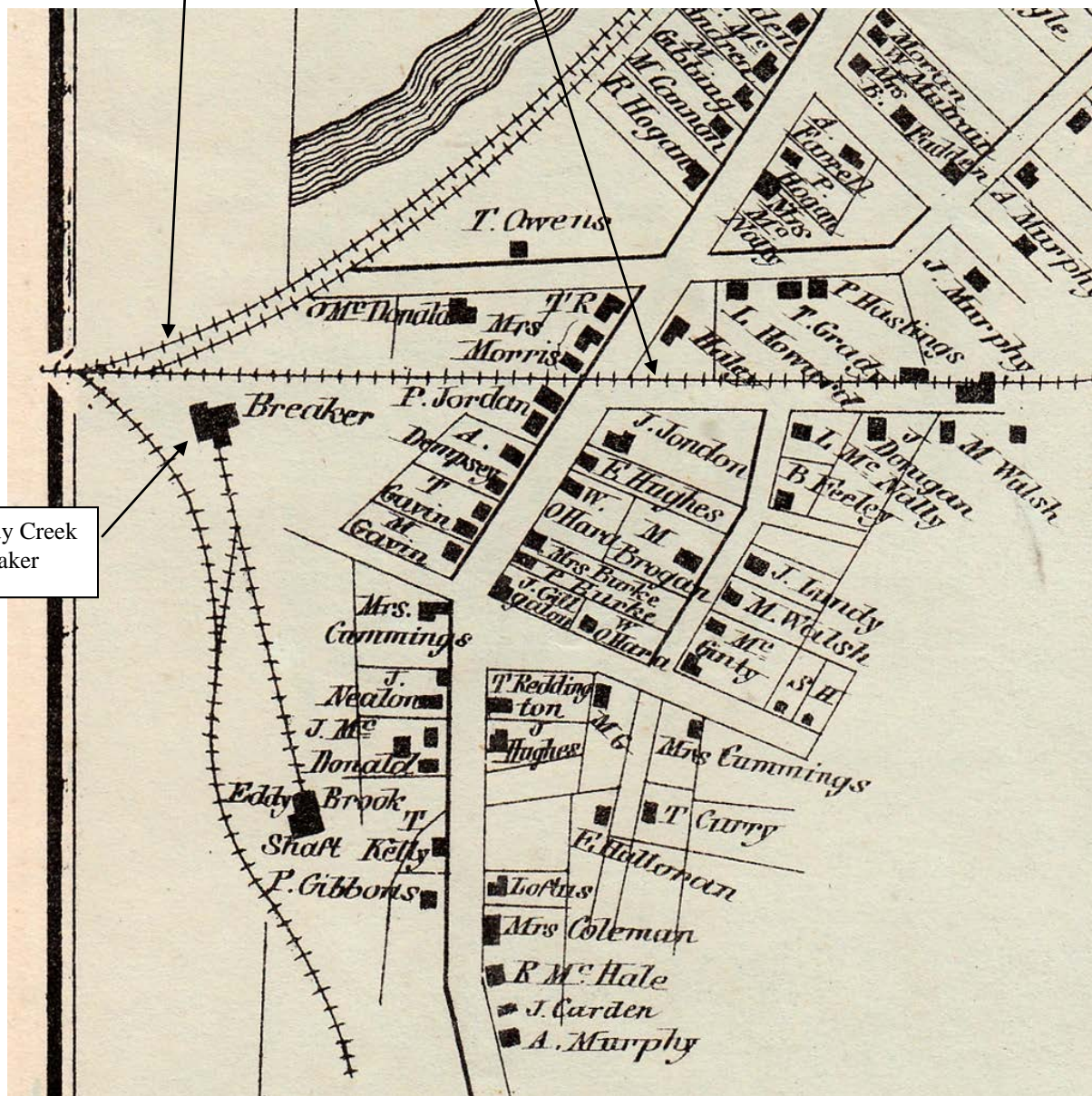
Death of Andrew Nicol at the Eddy Creek mine in Olyphant in 1889:

"A BRAVE MAN'S DEATH. / THE THRILLING EXPERIENCE OF ANDREW B. NICOLL. / Scranton, Penn., Sept. 14.—Andrew B. Nicoll, the General Superintendent of the Delaware and Hudson Canal Company' mines in this region, died this morning, after the most intense suffering, of the injuries he sustained in the explosion of firedamp at the Eddy Creek mine Olyphant three weeks ago. Nicoll is the fourth victim of that terrible disaster with set fire to the mine. A braver man never faced death in a colliery. With four of his men he entered the Eddy Creek shaft to look for gas, and after making a tour of investigation one of the party, a man named Mason, called Mr. Nicoll's attention to a wall built across of the cross-cut, which he said was while before the fall of the roof and was now black. Never suspecting danger, the men held up their lights as high as their heads for a better look at the blackened wall, and in an instant there was a terrific explosion, which shook the mine and struck terror to their souls. / Mr. Nicoll and his companions were now in darkness, a mile and a quarter from the foot of the shaft, and they realized that they were terribly burned by the deadly flash. Knowing that relief from the outside could not reach them if they staid [sic] there, the heroic Superintendent rallied his comrades to make one supreme effort for life. Their clothing had been set on fire and was still burning about their limbs. Mr. Nicoll with his own hands rubbed the smoldering garments until he extinguished the fire, and burned every particle of skin from his hands in doing so. When he could endure the agony no longer he tore the burning clothing off with his teeth, severely injuring his mouth and face in the attempt. Then came the desperate walk in the dark of a mile and a half to the foot of the shaft. The Superintendent led the party, and guided their progress by feeling the rail in the little mine road along which they crept. One of the men begged that he might be permitted to remain and die, but Nicoll dragged him along by the collar until all finally, after a terrible struggle, reached the foot of the shaft, from which they were speedily hoisted to the air and sunlight. / Since the accident four of the party have died of their injuries. Mr. Nicoll being the fourth. He was born in Scotland in 1849, and was a man of great courage and perseverance. He worked his way up from a humble position until he became General Superintendent of all the Delaware and Hudson mines. He was familiar with disaster, and never shrank from danger in leading relief parties down in the depths to try to save some poor miner whose life was threatened by falling roof or firedamp." (*The New-York Times*, September 15, 1889) For more on Andrew Nicol, see page 23 herein.

Level 22 (light track) running to the foot of Plane 23

Plane No. 23, "G", a portion of which is now Gravity Street

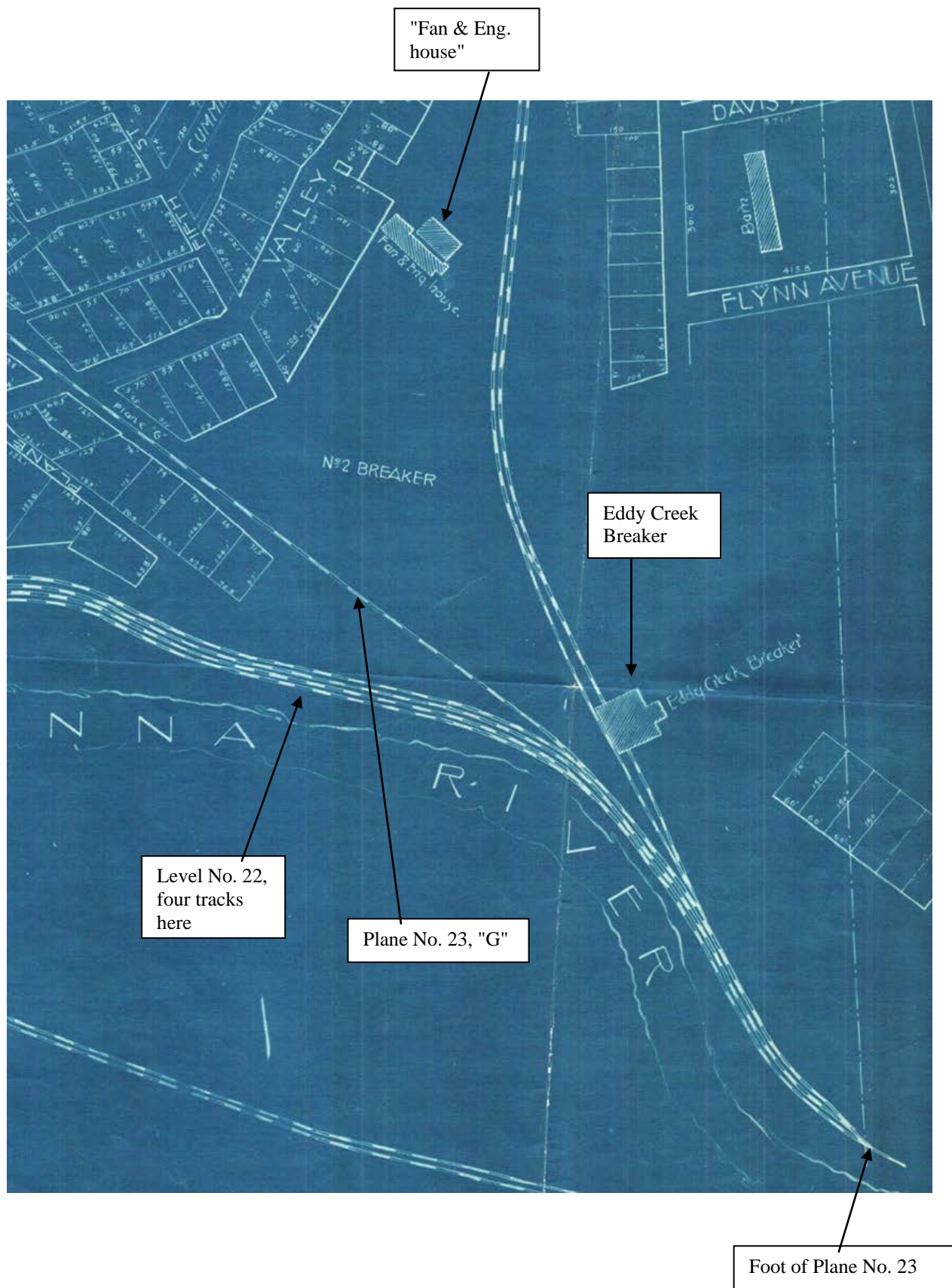
Eddy Creek Breaker



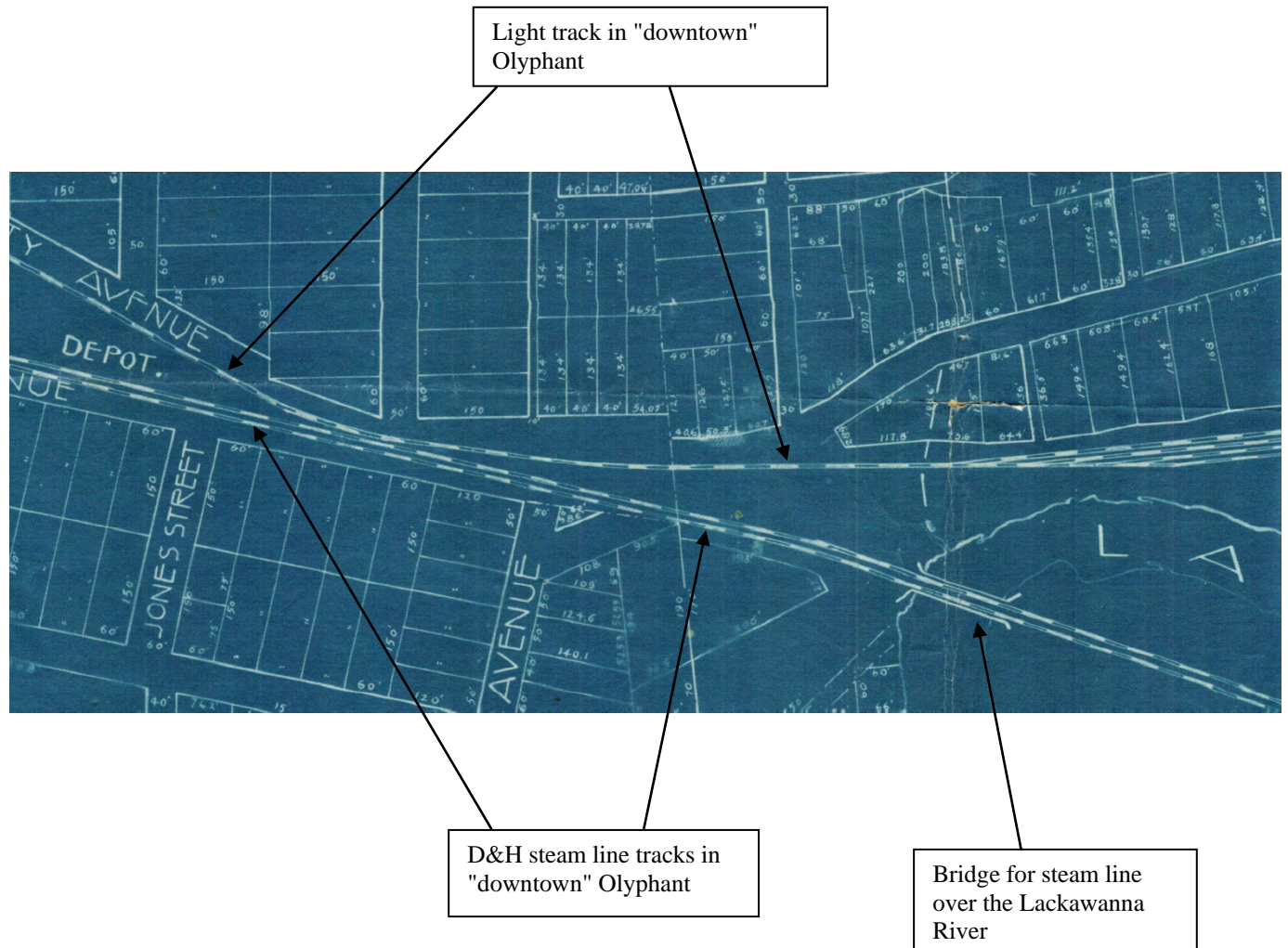
On an 1895-96 blueprint map of Olyphant borough* in the collection of the Lackawanna Historical Society, there are four tracks to the light track in its final stretch from just a little south of the beginning of Valley Avenue to its point of junction with the loaded track, making that area into a light track yard, as it were. This makes sense: plenty of empties in readiness to be filled and sent north to market.

Given on page 320 is a view from the 1895-1896 Olyphant blueprint map. Note the Eddy Creek Breaker near the foot of and to the right (south) of Plane G. About half-way up the plane and between the plane and the tracks associated with the Eddy Creek Breaker, one sees the "Fan & Eng House," also "No. 2 Breaker."

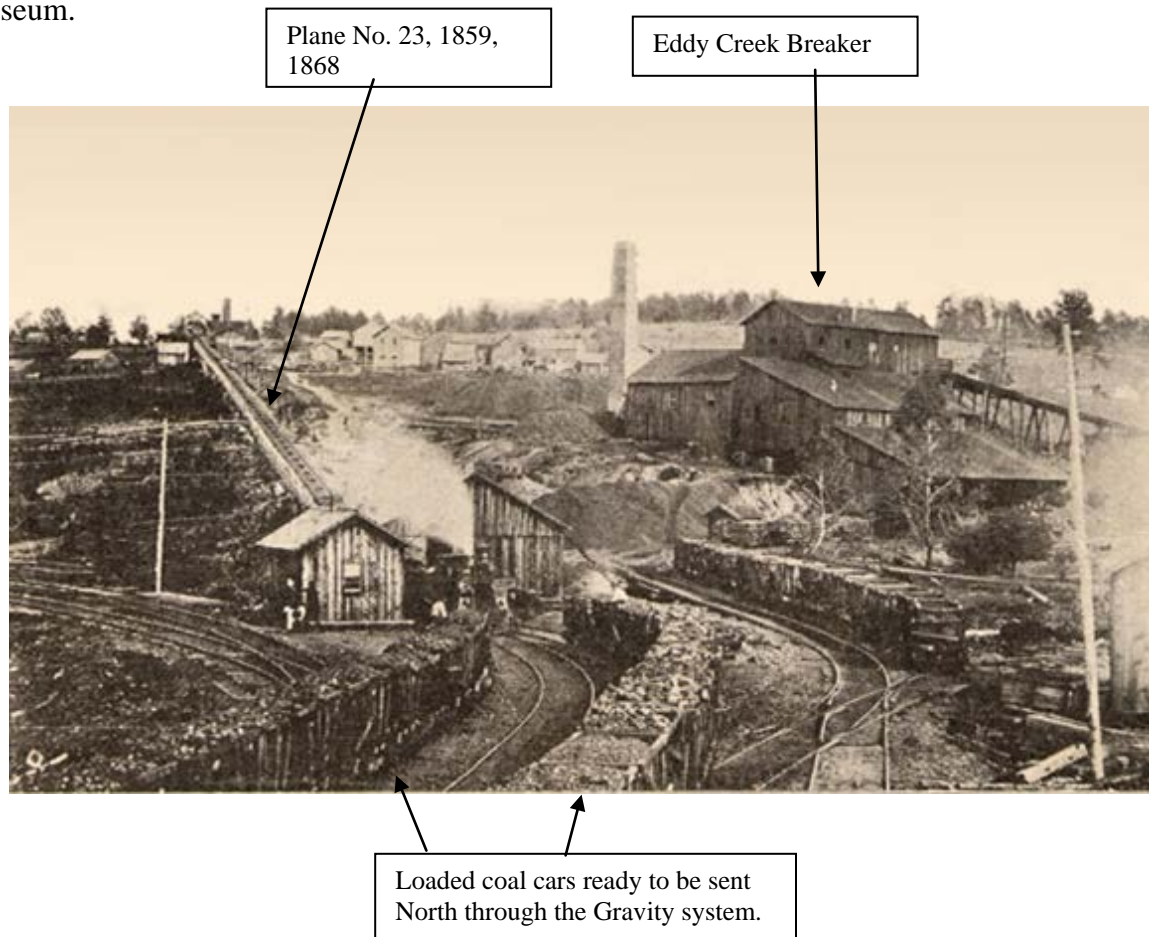
* "1895-6. / A Map / of / Olyphant Borough / Lackawanna County Penn'a / From Original Survey & other Reliable Data. / Scale 200 Ft. to One Inch / Edward F. Blewitt. C. E. "



Here is the portion of this blue print map of Olyphant that shows the light and the steam line tracks as they pass through "downtown" Olyphant:



Foot of Plane G: where the loaded and light tracks of the Gravity Railroad came together. This photograph is used by Lowenthal on page 230, where he identifies the photograph as one by Johnson (Scranton, PA), 1860. Lowenthal's source of the photograph is the National Canal Museum.

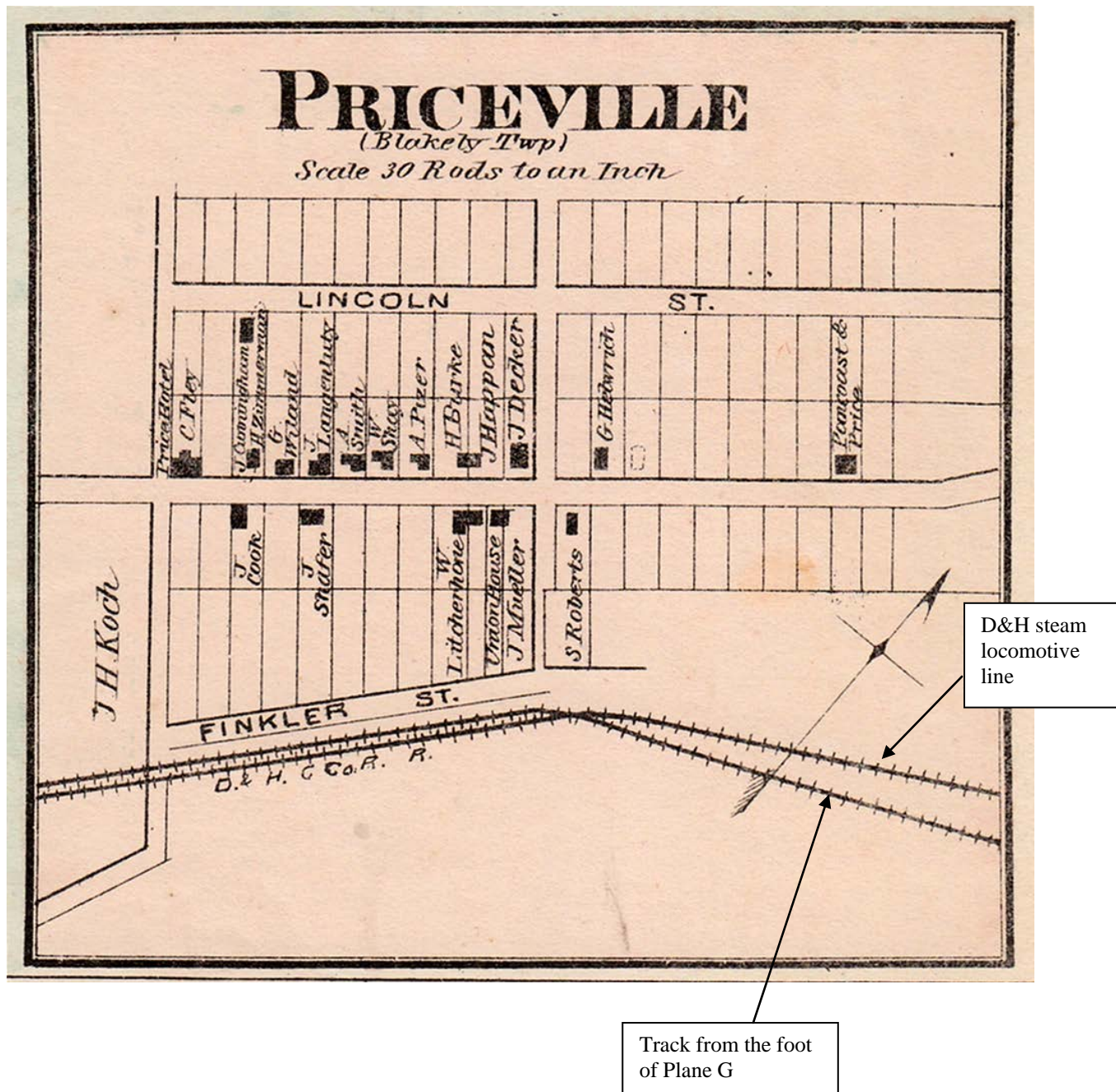


Foot of Plane G: where the Gravity Railroad connected to the Valley Road (to Providence). Plane G ascends the hill, with two strings of loaded cars at the base of the plane, ready for shipment. The multiple tracks of the light track are seen at the left. The Eddy Creek Breaker is on the right. Two tracks from the breaker came down from the breaker a short distance and then connected up with the D&H Gravity tracks at the junction of the loaded and light tracks.

This area today, as seen from up on the hill behind the smoke stack of the Eddy Creek Breaker, in Smoketown, looking down the hill, is shown in the photograph given below, taken by the author on June 30, 2011. Smoketown was partly in Throop borough and partly in Olyphant borough. There was a row of D&H houses, all painted red, on the spine of the Smoketown hill. These houses were called Red Row, which was in the Throop part of Smoketown. Special thanks to Bob McDonough for showing the author this site.



After the short Gravity track from the foot of G crossed the Lackawanna River, it headed south on its own roadbed on the west side of the locomotive line, to the Von Storch Breaker in Green Ridge. This intersection of the Gravity line and the steam locomotive line along Finkler Street and the street that runs at right angles to Lincoln Street in Priceville (Dickson City) is **Valley Junction**.



Loaded Track, from Olyphant to Carbondale:

5933

Plane No. 23 “G”

--Length of Plane: 1,352 feet, (rise 124.45 feet)

--Level 23: 9,329 feet long, (fall 77.89 feet)

“Altitudes Again. / We are indebted to O. D. Shepherd, Esq. Chief Engineer of the D. & H. C. Co. of this city, for the following elevations, omitting fractions, above tide water, of various points on the Gravity R. R. of the Company: / Olyphant, Foot of “G” 751” (*Carbondale Advance*, September 17, 1870, p. 3)

Engineers at the head of Plane No. 23:

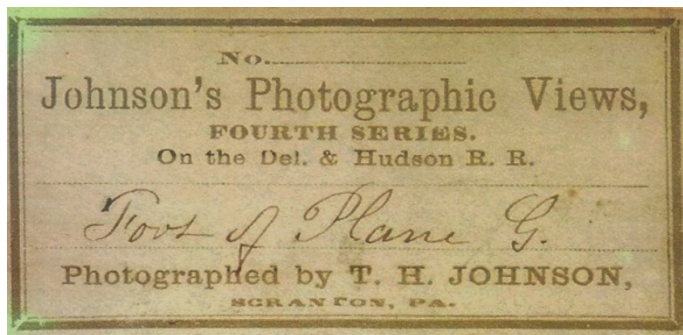
“No. 23, Olyphant, Samuel Holland, George H. Vannan and Henry Siebold were successively engineers.” (*Joslin/Davies*)

Plane Engineer at “G” in 1880:

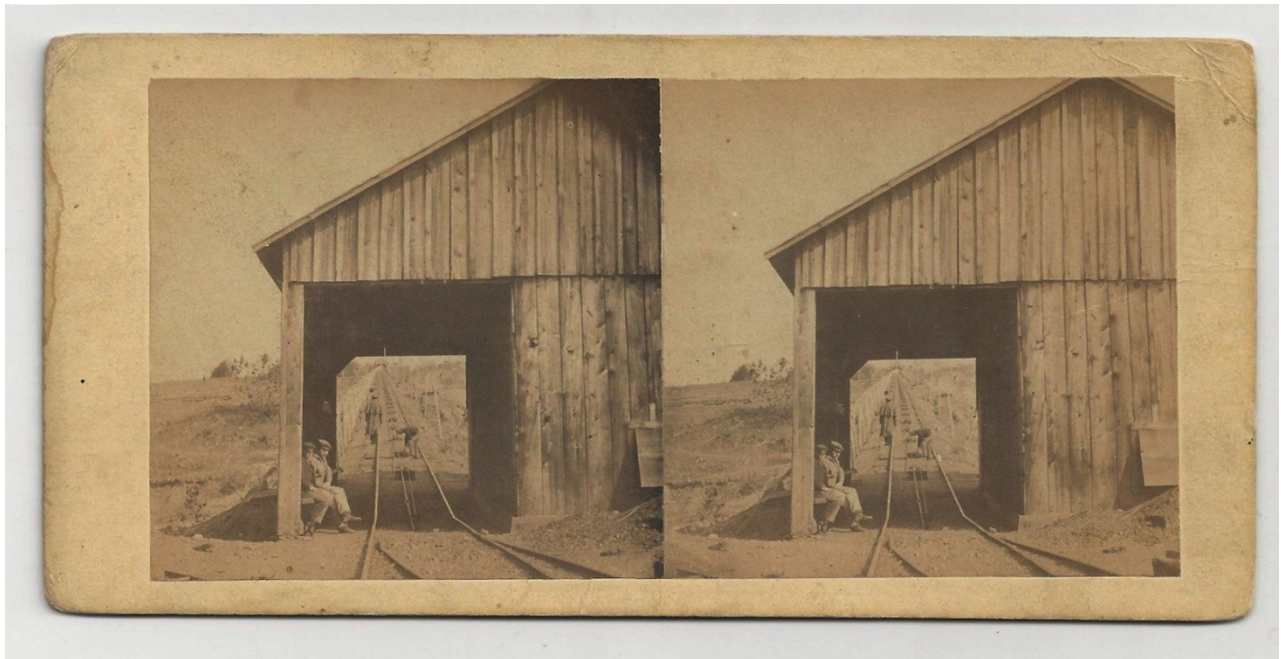
“GEORGE H. VANNAN, a native of Carbondale, has been a plane engineer in the employ of the Delaware and Hudson Canal Company since 1874, and took charge of the engine on plane 23 at Olyphant March 27th, 1880.” (1880, p. 470D). George H. Vannan married, on June 22, 1881, Jennie Evans, daughter of John C. Evans of Olyphant. (see *Carbondale Leader* of June 24, 1881, p. 4).

Coal cars were hauled to the foot of plane 23 from the company’s mines south of that point by a Gravity-gauge locomotive. The loaded cars were then taken through Planes 23, 24, 25, 26, 27, and 28; then into the loaded-car system out of Carbondale.

The beginning of the Loaded Track on its journey north was the foot of “G” in Olyphant. The upper portion of the plane is still in existence, now named Gravity Road. In December 2014, John V. Buberniak learned that a stereocard photograph by the Scranton photographer T. H. Johnson of Plane 23 was being sold on E-bay. Here are two details from the back of this stereocard:



Here is the front of this very rare stereocard, "Foot of Plane G.," by T. H. Johnson from "Johnson's Photographic Views, / Fourth Series. / On the Del. & Hudson R. R. / Photographed by T. H. Johnson, Scranton, PA." This view of Plane G was probably taken by Johnson in 1860 when he was hired by the D&H to photograph other components of the D&H transportation system.



Here is a view of a cut of loaded coal cars being pulled up No. 23 out of Olyphant. Jim Shaughnessy uses this photo on page 38 and identifies his source of the photo as the G. M Best Collection. Philip Ruth uses this photograph as his cover photo on *Of Pulleys and Ropes and Gear*. Ruth identifies the photographer as Hensel, and the date of the photograph "around 1890." This photograph is given in *Century of Progress* on page 137 where it is captioned: "Gravity plane No. 23, Archbald, Pa." That caption should read: "Gravity Plane No. 23, Olyphant, Pa." A short Gravity-gauge track ran south from the foot of Plane G and then crossed the Lackawanna River and joined up with the standard- and Gravity-gauge D&H steam locomotive line.

This looks like a Hensel photo.

D&H locomotive/steam line in
the Lackawanna Valley, the
Valley Road



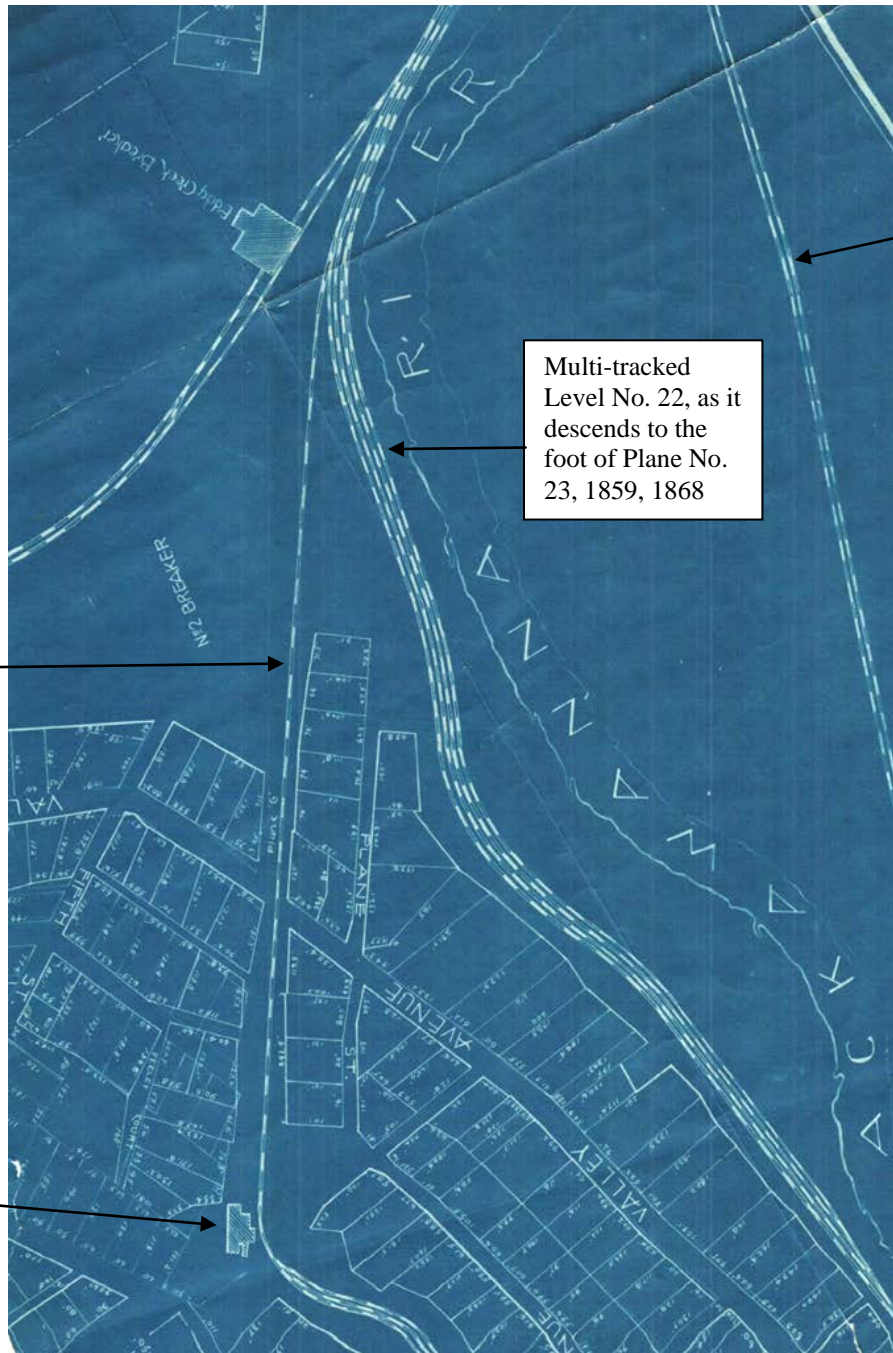
Plane No. 23, 1859,
1868. The head of this
plane was located at the
top of present-day
Gravity Street

Here is the Hensel stereocard view #1128: *Olyphant, seen from near head of No. 23 Plane*. (“A Ride over the Del. & Hud. Gravity Road into the Coal Regions, Photographed and Published by L. Hensel, Port Jervis, N. Y.”)



Once the loaded cars reached the head of No. 23, they began their descent of Level 23, northward, heading for Peckville.

Here is a view from the 1895-96 blueprint map of Olyphant of all of Plane G as it ascends the hill. The portion of the plane above Valley Avenue is today Gravity Street. The street north of the plane and which runs parallel with the plane is called Plane Street:



D&H steam line, the Valley Road

Multi-tracked Level No. 22, as it descends to the foot of Plane No. 23, 1859, 1868

Plane No. 23, "G," 1859, 1868

The engine house at the head of Plane No. 23

Here is a view from the 1895-96 blueprint map of Olyphant of the Head of Plane G and the beginning of Level 23:

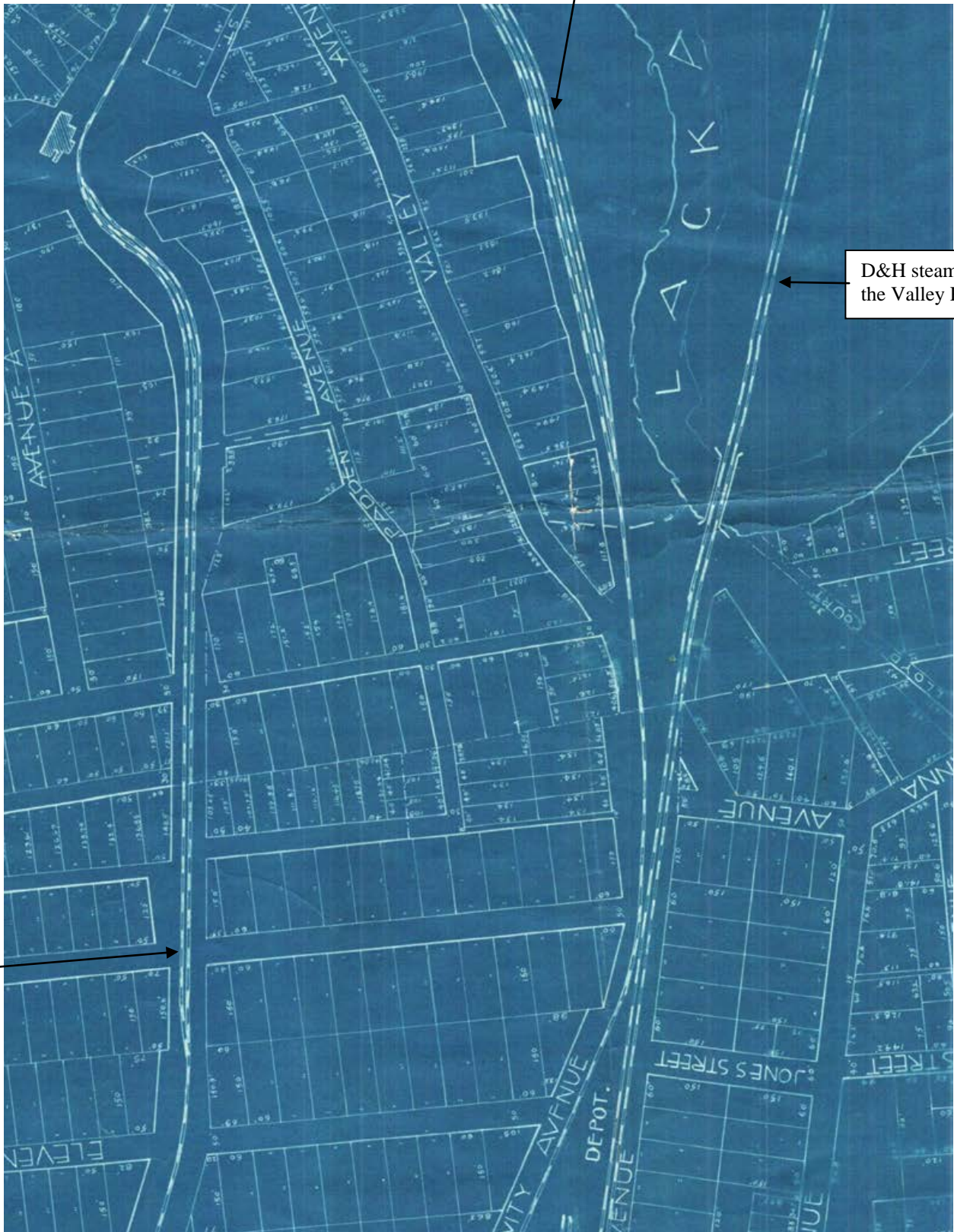


Here is a view from the 1895-96 blueprint map of Olyphant of the Head of Plane G and the multiple tracks on the level (three and then two and then, just above Eleventh Street, it becomes one track) as it begins its journey downgrade to Peckville. The road down which the level descends is today named Gravity Avenue.

Level No. 22, as it descends
to the foot of Plane 23

D&H steam line,
the Valley Road

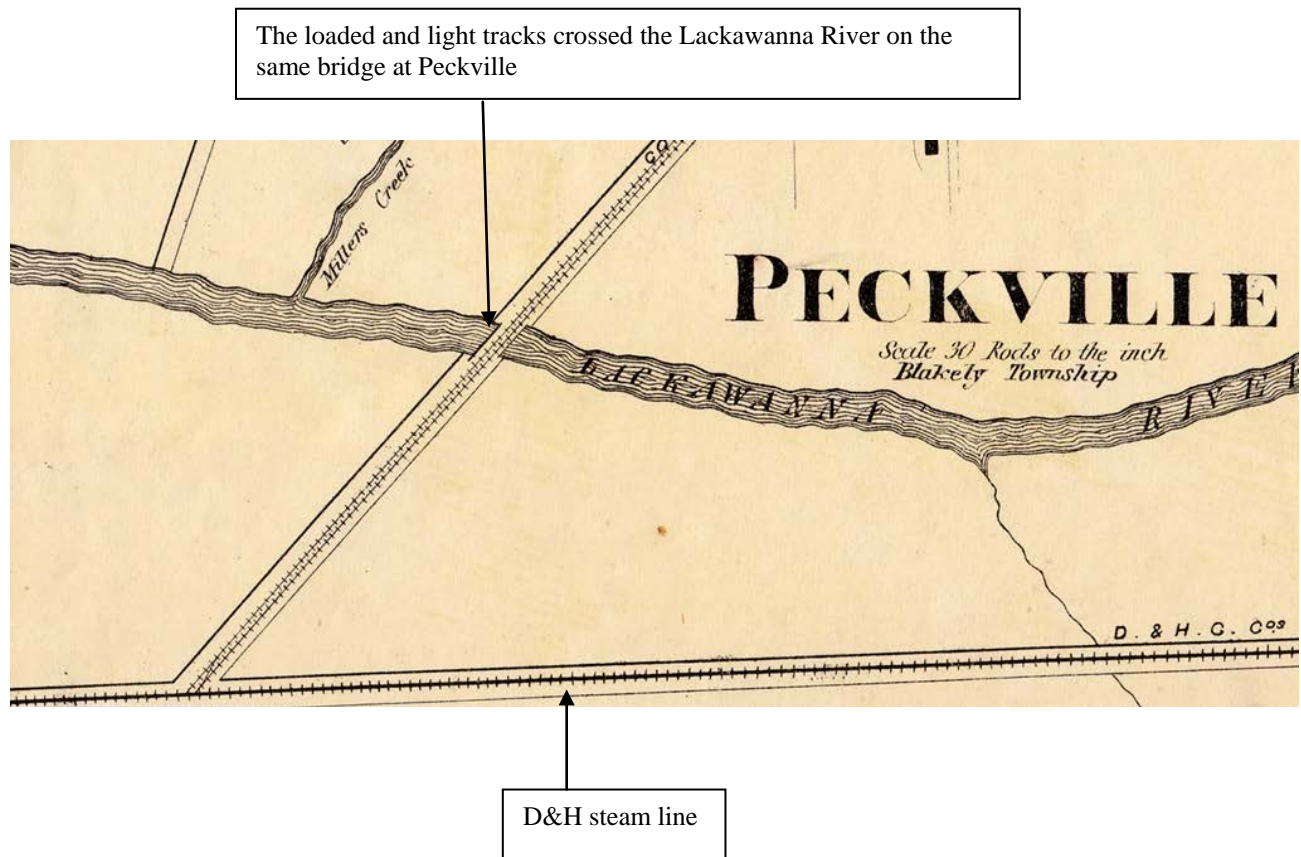
Level
No. 23



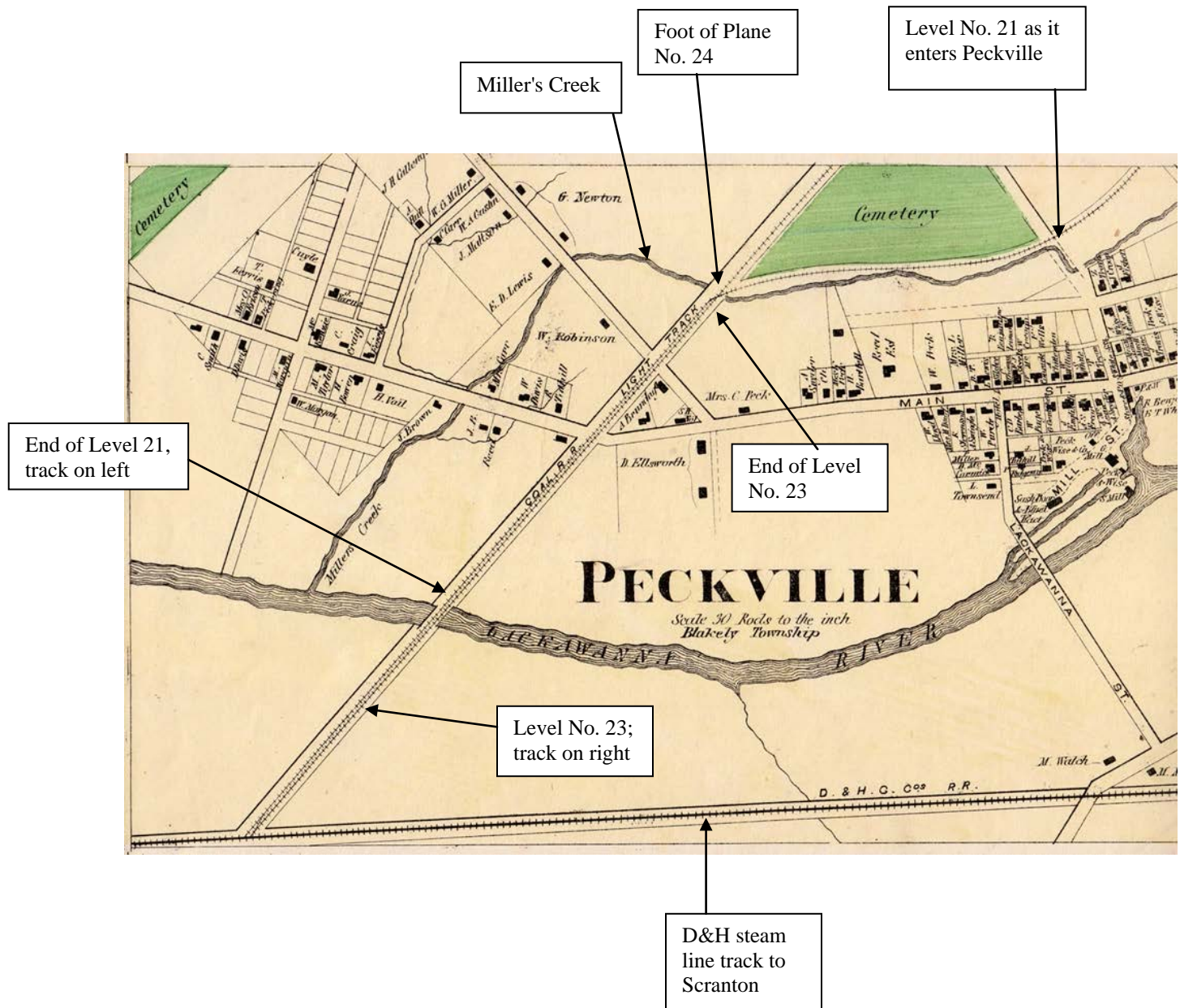
How did the loaded cars (Level 23) get across the Lackawanna River and into Peckville?

As late as 1873, the loaded and light tracks crossed the Lackawanna River on the same bridge at Peckville. This we can see from the detail of the D. B. Beers map of Peckville that is given below:

D. G. Beers, Peckville:

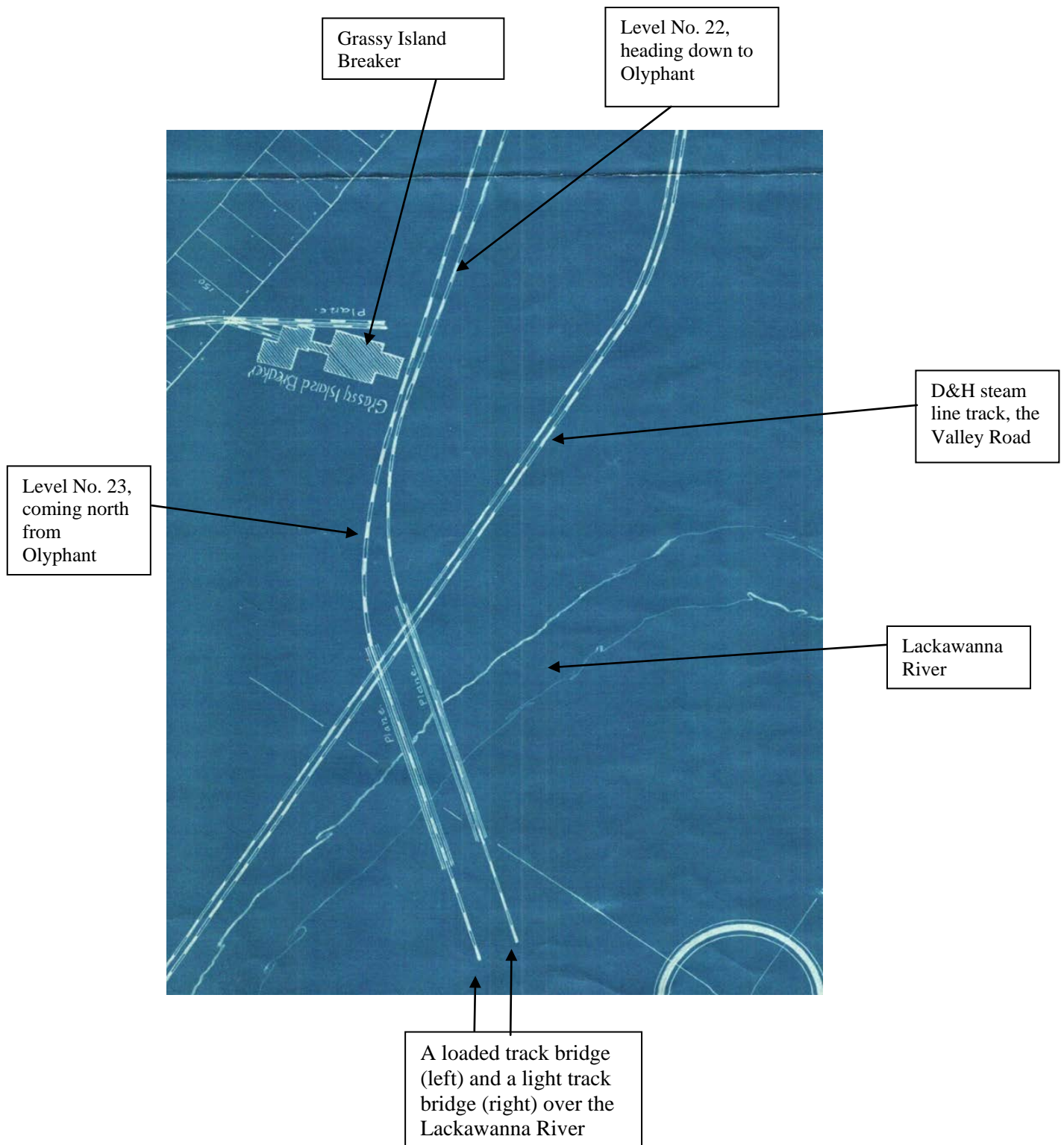


Here is a larger view of downtown Peckville from the 1873 *D. G. Beers* map volume:

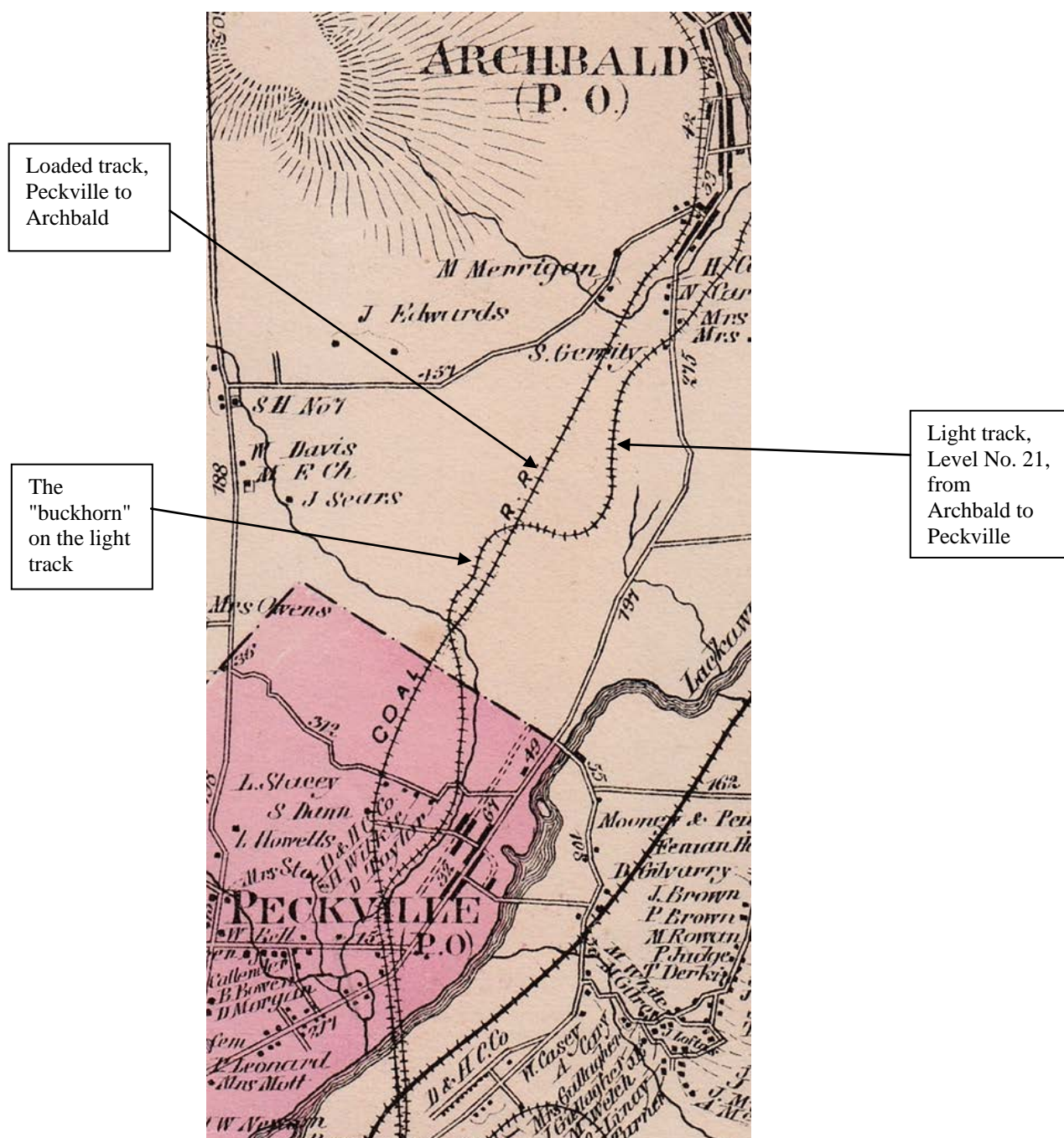


The above maps (1873) show two tracks crossing the river: the loaded on the north and the light on the south. In the photo shown above (page 307) of the engine house on Plane 22 (dated 1860) on the light track, only one track is shown on the plane. Were both the loaded and the light tracks switched onto a single track for the trip over the river—the light cars being pulled up (what was indeed an inclined Plane), the loaded cars being lowered down (what was in effect a section of the level between the head of 23 and the foot of No. 24)? If that was the case, there must have been endless log jams at this bridge, which surely resulted in the construction of two separate bridges by 1879, when Hensel took his photo of the two bridges here: one for the loaded cars and one for the light cars.

On the 1895-96 blueprint map of Olyphant, the loaded and the light tracks cross the Lackawanna River at Peckville on two separate bridges, the loaded track bridge up-river (on the left in the view below) from the light track bridge. Note the close proximity of the Grassy Island Breaker and the loaded track. The track that intersects/runs under both Gravity tracks is the D&H steam locomotive line, the Valley Road.



Here is another view (from the Blakely map on p. 29 of *D. G. Beers*) of both the loaded and light tracks in downtown Peckville. Notice how the light track snakes along on its way south from Archbald to Peckville. The loaded track is the straighter of the two; the curvy track is the light track. The section of track between the two intersections of the light and loaded tracks between Archbald and Peckville is known as “the buckhorn.”



The end of Level 23 (and the foot of 24, E) was in Peckville.

Accidents, Facts about the Plane, Daily Life (Plane and Level 23)

L. Laman run over by coal cars near Plane No. 23:

“Mr. L. Laman formerly of this place [Carbondale] was run over by the coal cars upon the Railroad near Plane G on Tuesday of this week. He died of his injuries the following day.” (*Carbondale Advance*, August 30, 1862, p. 3)

George Griggs mangled by 14 coal cars:

“Died, at Olyphant, on the 29th ult, George G., son of Mr. Orlin Griggs of Carbondale, aged 13 years and 15 days. / George came to his sad and sudden death in the following manner: By permission he accompanied Mr. Luther Ellis down the railroad on a lumber car with a coal car attached, employed for carrying mine props. While these cars were stopped on the down track at Olyphant near the foot of Plane G, a train of coal cars overtook them. It is supposed that George jumped off to avoid the shock of a collision and as he was attempting to get on again, the toe of his right foot caught in the wheel above the truck of the coal car attached, throwing him down and dragging him for some rods, when his lower limbs by some means were thrown across one rail of the track and the 14 coal cars passed over him, awfully mangling and really severing his body. His remains were conveyed to his afflicted parents at Carbondale, where his funeral was attended on the following day at the Baptist church by a crowded and sympathizing congregation. Many of his companions in the Sabbath School were present to participate in the sad and solemn services.” (*Carbondale Advance*, December 6, 1862, p. 3)

Damage to Plane G in 1867 from flood:

"RAIN--FLOOD.--A rain commenced here on Monday afternoon, and has continued unto this time--Thursday noon--three days. A portion of the time, especially during Tuesday night and Wednesday forenoon it poured down most rapidly. The Lackawanna, and every little tributary have been swollen beyond any precedent in many years, the railroad in some places submerged, some bridges swept off, and other damage done. / INTERRUPTION TO TRAVEL. Travel by Railroad is temporarily interrupted between our town and Scranton. There is some damage done to the Railroad at the foot of Plane G, below Olyphant, and again below Dickson. The damage and delay are however much more slight than was feared. We have since Wednesday noon received our mails irregularly and those by carriage. . . Trains have been interrupted from Scranton North, but on the Southern division have been run nearly on time. . ." (*Carbondale Advance*, Saturday, May 11, 1867, p. 2)

Michael Dooley run over by coal train:

May 7, 1874: "Michael Dooley, a brakeman, run over by coal train at foot of G plane, near Olyphant, and fatally injured, died May 15." (*1874 PA State Auditor Report*, p. 129)

Thomas Dixon run over by coal train:

June 3, 1874: "Mrs. Thomas Dixon, run over by coal train on Gravity road, near Olyphant, and both legs badly crushed, from the effects of which she died June 10." (*1874 PA State Auditor Report*, p. 129)

Sixteen new coal trains between Green Ridge and the foot of G, 1879:

"A new time-table went into effect on the Del. & Hud. here on Wednesday of this week. Sixteen new coal trains are added between Green Ridge and the foot of G plane, at Olyphant, where they are transferred to the Gravity track. The changes in the time of the passenger trains here are very slight. . . (*Carbondale Advance*, May 31, 1879, p. 3)

The whistle on Plane G as a fire alarm:

"A very destructive fire occurred at Olyphant yesterday morning, which destroyed a livery stable and a church [the Welsh Presbyterian Church]. The livery stable was extensive and was owned by S. Tinsley. But the business was conducted by Williams. The fire was first discovered in the stables shortly after one o'clock. The source is not yet known. The alarm was given by the church bell and the whistle at Plane G, and was promptly responded to by a large number willing to assist, but owing to a lack of water supply, three horses out of nine perished in the flames. . . ." (*Scranton Republican*, May 5, 1881; from Bob McDonough's *Murphy and the Old Burying Ground*, p. 17)

Utley Thorp was a conductor on one of the Peckville Gravity trains:

"Utley Thorp, conductor of one of the Peckville gravity trains, who has been sick for some time, is now doing light duty in the yard at the foot of "G." (*Carbondale Leader*, September 2, 1881, p. 4)

Rope breaks at No. 23:

"The breaking of a rope at No. 23 on Monday morning and another at No. 1 in the evening laid [had?] the boys out on the Gravity until 10 o'clock at night." (*Carbondale Leader*, February 23, 1883, p. 2)

Willis Andrews killed chasing cattle off the track at Plane G:

Plane G in 1884: "Willis Andrews, head brakeman on Conductor Darrick's train, met with almost instant death on G level last Wednesday. He jumped from the moving train to drive some cattle from the track, and in some way stumbled and fell and before he could regain his feet the cars were upon him. One leg was frightfully mangled and the shock was so great that he only lived a few moments after the accident. He was a single man about 21 years old. His parents live near Seelyville, Wayne county. He boarded with Mr. Darrick in Peckville." (*Carbondale Leader*, February 15, 1884, p. 2)

More on the death of Willis E. Andrews:

“The Wayne *Independent*, of the 13th inst., contained an article headed ‘What caused his Death?’ In the article referred to, it is said that at the time of the death of Willis E. Andrews, which occurred at Peckville on February 15th, it was stated in the public prints that he was killed by being run over by the cars, and adds that such was not the case. It then went on to give particulars, stating that he was running a train of empty cars on the D. & H. gravity near Peckville, discovering some cattle on the track ahead, he applied the brakes, stopped the cars, got off and began throwing pieces of coal at the cattle, in doing this he slipped and fell, from which, it is supposed, he sustained internal injuries, that caused his death, as no bones were broken, neither was there any visible external wounds. We gave the readers of the LEADER an account of the accident at the time. We received our information from the conductor of his train, and the report was true, except that his leg was not as badly mangled as stated. He was running head brake on a train of loaded cars at the time of the accident, and when he slipped, the cars were running slowly, the wheels caught his leg and he was dragged several feet before the cars were stopped, and it is supposed the shock killed him, as the injury itself was not such as would cause death. We do not wish to contradict any thing that appears in a great paper like the *Independent*, neither do we wish people to think we would give them falsehoods for facts in regard to anything that occurs in our midst.” (*Carbondale Leader*, March 21, 1884, p. 2)

5934

Plane No. 24 “E” in Peckville

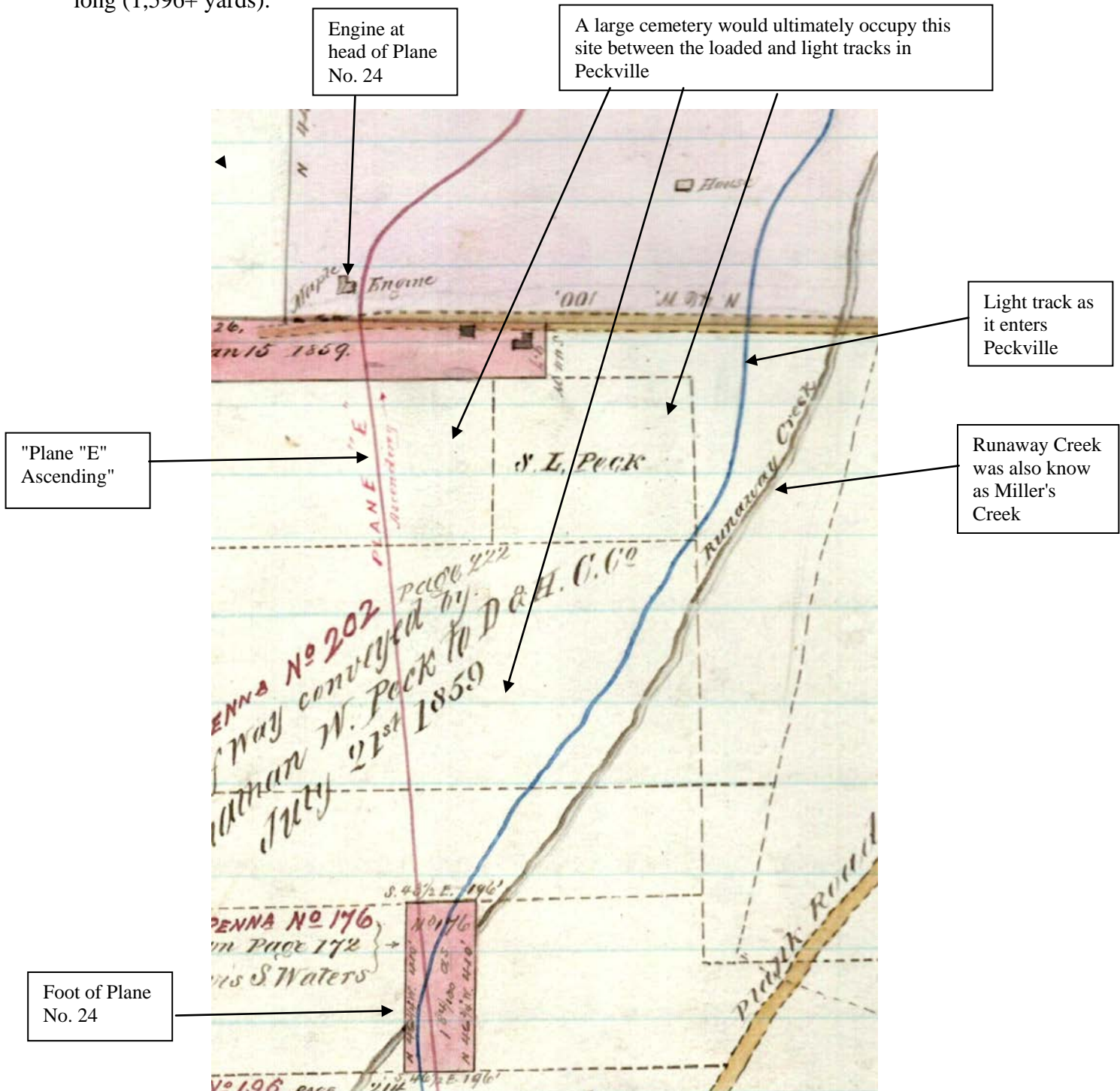
Length of Plane: 1,462 feet, (rise 122.50 feet)

Level 24: 4,790 feet long, (fall 40.37 feet)

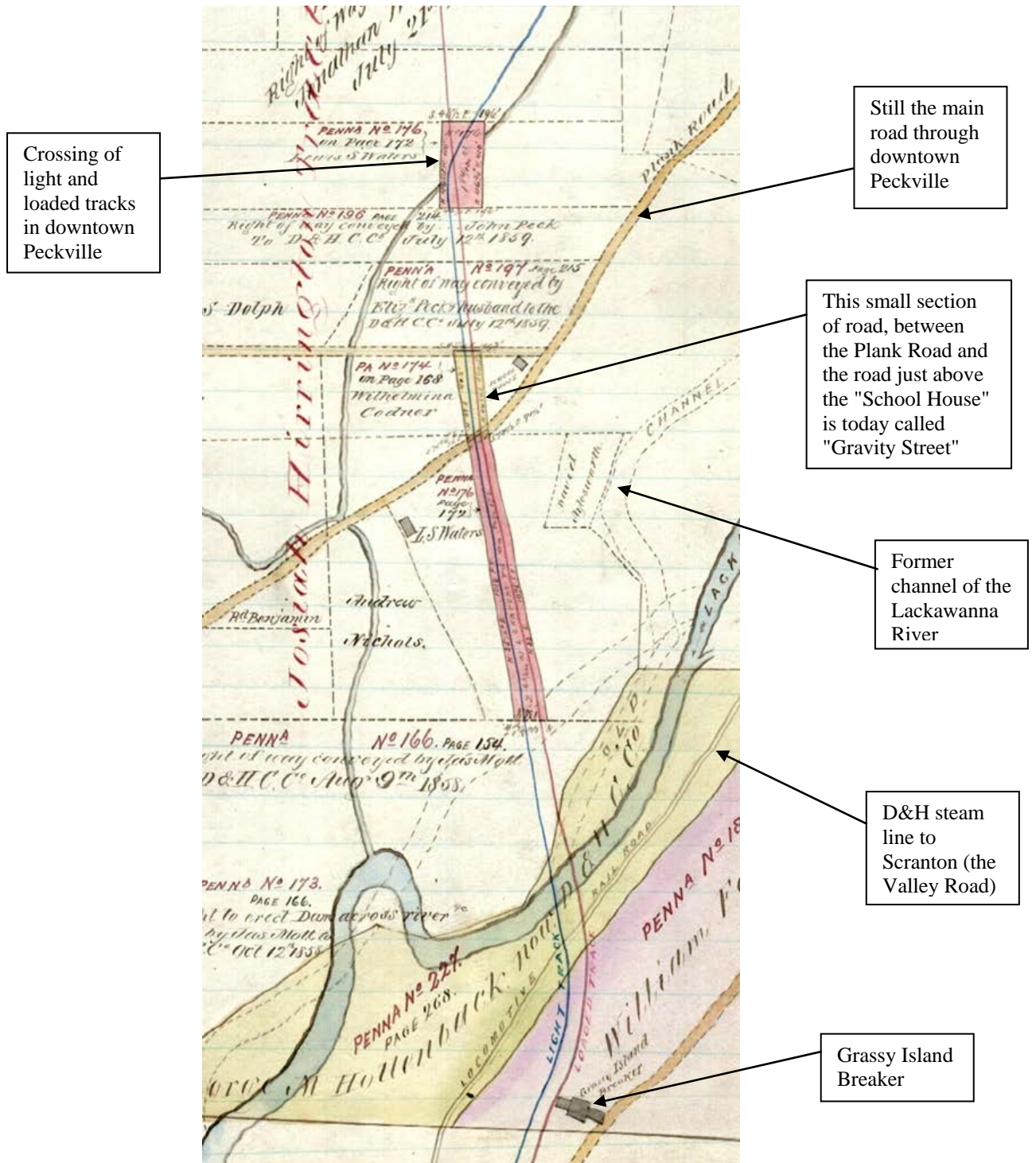
Engineers at the head of the plane:

“No. 24, near Peckville locomotive tracks, Charles Taylor [engineer at the plane]. After his resignation, Charles Bronson, transferred from No. 21.” (*Joslin/Davies*)

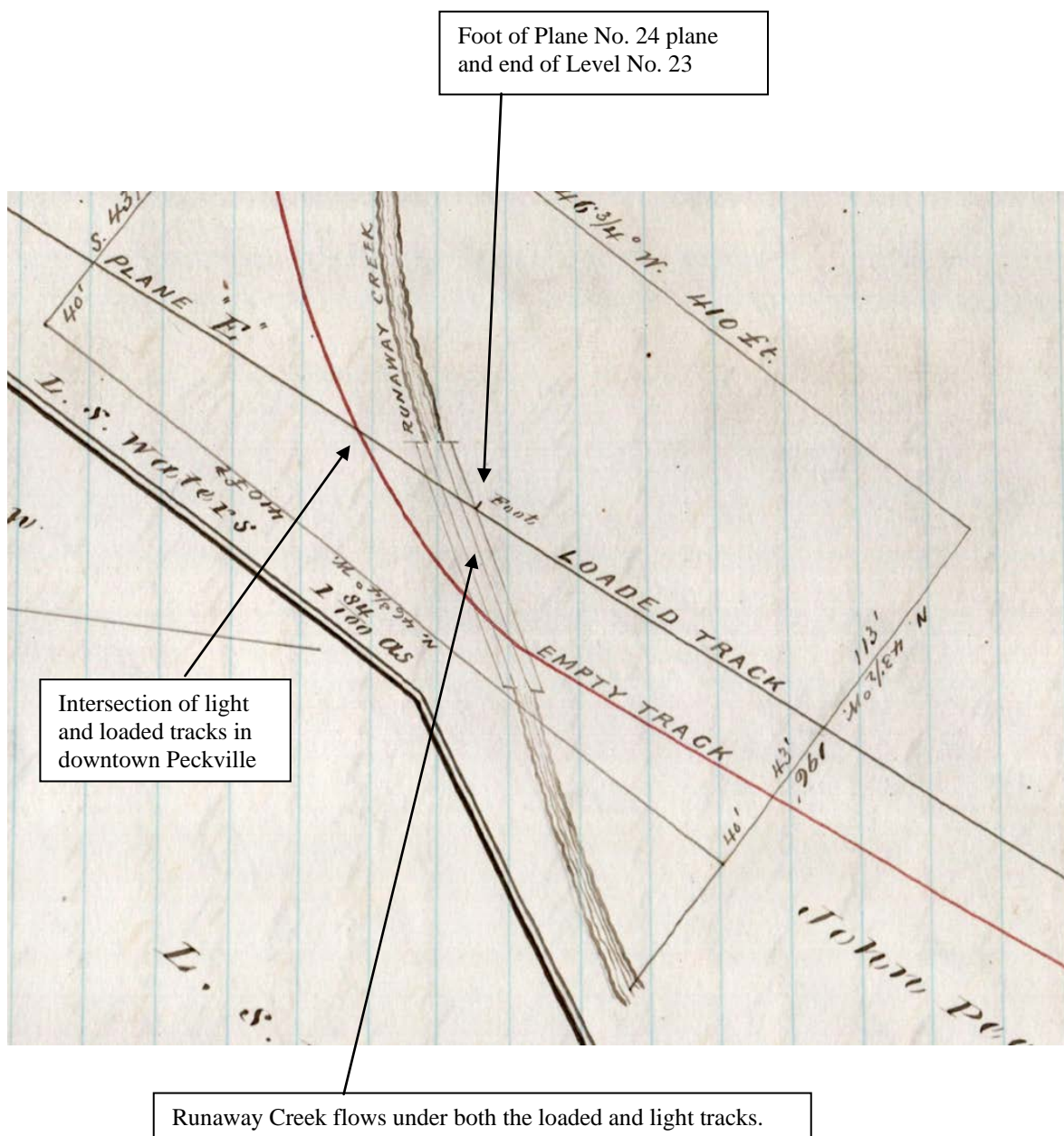
The exact location of Plane “E” is shown on the map on page 195 in *D. & H. Deeds – Luzerne* 2, deed dated March 23, 1859. The deed, pp. 193-194, is between Abel Banker and his wife Phoebe Ann Banker and The Delaware and Hudson Canal Company. The relevant section of that map is given below. Note that the Plane was 1,462 feet long (487+ yards) and the Level was 4,790 feet long (1,596+ yards).



The foot of Plane "E" was very near to the point where the loaded and the light tracks crossed. Here is a section of the above-referenced map, from the foot of Plane No. 24 to the Lackawanna River. It is a wonderful map, loaded with details about the Gravity Railroad and about downtown Peckville.



The foot of Plane “E” was at the south point of the Cemetery, where the loaded and light tracks crossed in downtown Peckville. This we know from the map on page 172 of the *D. & H. Deeds Luzerne 2*, that illustrates the deed, pp. 172-174, dated November 27, 1866, between Lewis S. Waters and his wife Harriet Gertrude Waters and The Delaware and Hudson Canal Company. This is the only map known to exist that shows such wonderful detail about the location of Gravity Railroad sites in this area. Given below is the relevant portion of that map. Note that just south of the intersection of the light and loaded tracks here that the word “Foot” is given on this map. The Foot of E is, of course, the end of Level 23.



This area today (07-12-2011): In traveling south on Main Street in Peckville, the first right-hand turn off Main Street, just after the light at the intersection of Route 247/Keystone Avenue with Main Street, is Gravity Road (now a one-block long street south of Route 247/Keystone Avenue; possibly there is a dead-end fragment of Gravity Road on the north side of Route 247/Keystone Avenue?). When you are on Gravity Road, you are on both the Light Track (coming down from Archbald) and the Loaded Track (near the end of the Level between the head of No. 23, in Olyphant, and the foot of Plane E/No. 24).

Both of these tracks were, side by side, running in a more or less northeasterly/southwesterly direction, in a straight line, on the north side of Route 247 for a couple of blocks (houses all through there now). Just below the southwest point of the Prospect Hill Cemetery, the Light Track and the Loaded Track crossed, the one coming downhill (Light), the other going uphill (Loaded):

The Light Track came down to this point on the south side of the Cemetery, between the Cemetery and what was known as Millers Creek in 1873. A portion of Virginia Avenue on the south side of the Cemetery is on the roadbed of the former Light Track.

The Loaded Track at this point (the southwest point of the Prospect Hill Cemetery) went up the hill on the northwest side of the Cemetery. The end of Level 23/Foot of No. 24 was located just below the southwest point of the Prospect Hill Cemetery.

Millers Creek (in *D. G. Beers* in 1873; this same creek is identified on the map immediately above as "Runaway Creek,") passed under both the Loaded and Light Tracks at the point where they crossed.

The Engine House of Plane E was located on the north side of the East/West street/road at the top of hill/head of the plane. That road is today possibly Union Street, possibly Riverside Drive. Further investigation required. In the photo given below, looking down the plane, it looks as if the plane was quite long, which suggests that maybe the head was at Riverside Drive?

Given below is a view of Plane E and the end of Level 23. This is a photograph by Johnson (Scranton, PA, 1860), the original of which is in the collection of the Wayne County Historical Society.

PECK'S CROSSING AND PLANE E,
DEL. & HUDSON CANAL CO.

Plane No. 24, "E"



Level No.
23 as it
crosses
downtown
Peckville

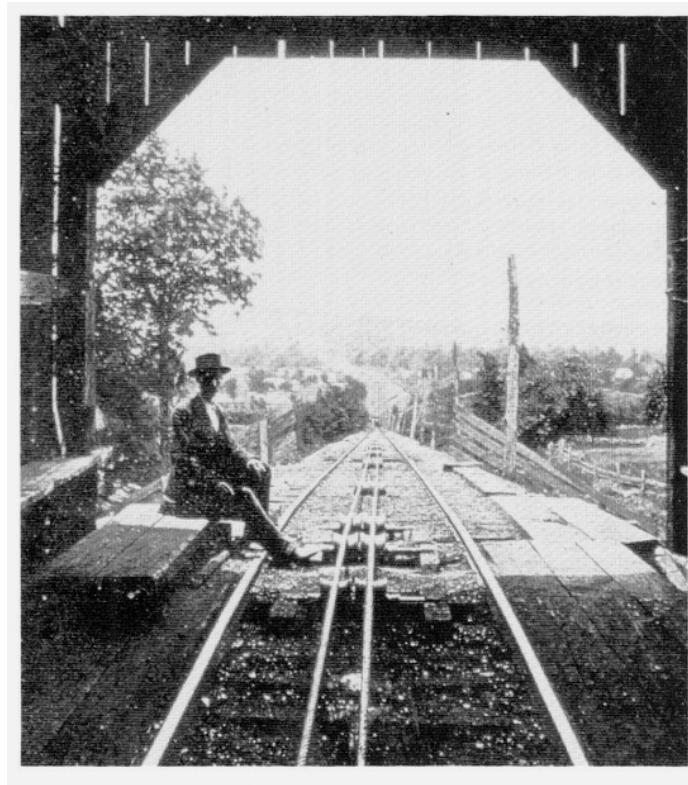
Mellow Park and
downtown Peckville at the
present time

Here is a close up of Plane E:

Plane No. 24, "E" in
Peckville



In the Philip Ruth book on page 67, there is a photo with the following caption: "A D&H worker, perhaps a 'headman,' waits at the knuckle of Plane 24 above Olyphant for another trip of loaded cars in this circa-1896 photograph by Louis Hensel." Here is that photo:



Plane No. 24, first of all, was not above Olyphant. It was in Peckville. In addition, the Gravity plane in the above photo is not Plane No. 24, as Ruth asserts. Rather it is Plane No. 26 in Archbald. This photo is Hensel No. 1132.

Special thanks to Tom Romanyshn who, in the course of a walk on the "Light Track" between Lincoln Avenue and the "Light Track" bridge over the Powderly Creek on April 19, 2012 pointed out this error to the author. A copy is given below of Hensel No. 1133: *View down the Lackawanna Valley from Plane No. 26*. Two different photographs of the same site, to be sure, both by Hensel, possibly both of them taken on the same day. Same engine house, same man seen in both photos: seated on the left in the photograph given above (Hensel No. 1132), seated on the right in the photograph below (Hensel No. 1133). On page 55, Ruth reproduces one of the panels of Hensel No. 1133 (shown below in the format of the complete stereograph card), and in his caption correctly identifies the photograph given below as Plane No. 26.

Hensel 1133: View down the Lackawanna Valley from Plane 26.



In his presentation on the Gravity Railroad in Archbald on May 13, 2013, Ed Casey erroneously identifies the man in the top hat in Hensel views No. 1132 and 1133 as Hensel himself! Absolutely not. Hensel, the consummate professional photographer, would never allow himself such an indulgence. The man in question is very probably the headman at Plane No. 26. The man standing between the tracks on the left might well be one of Hensel's assistants, who accompanied him on his ride over the Gravity Railroad.

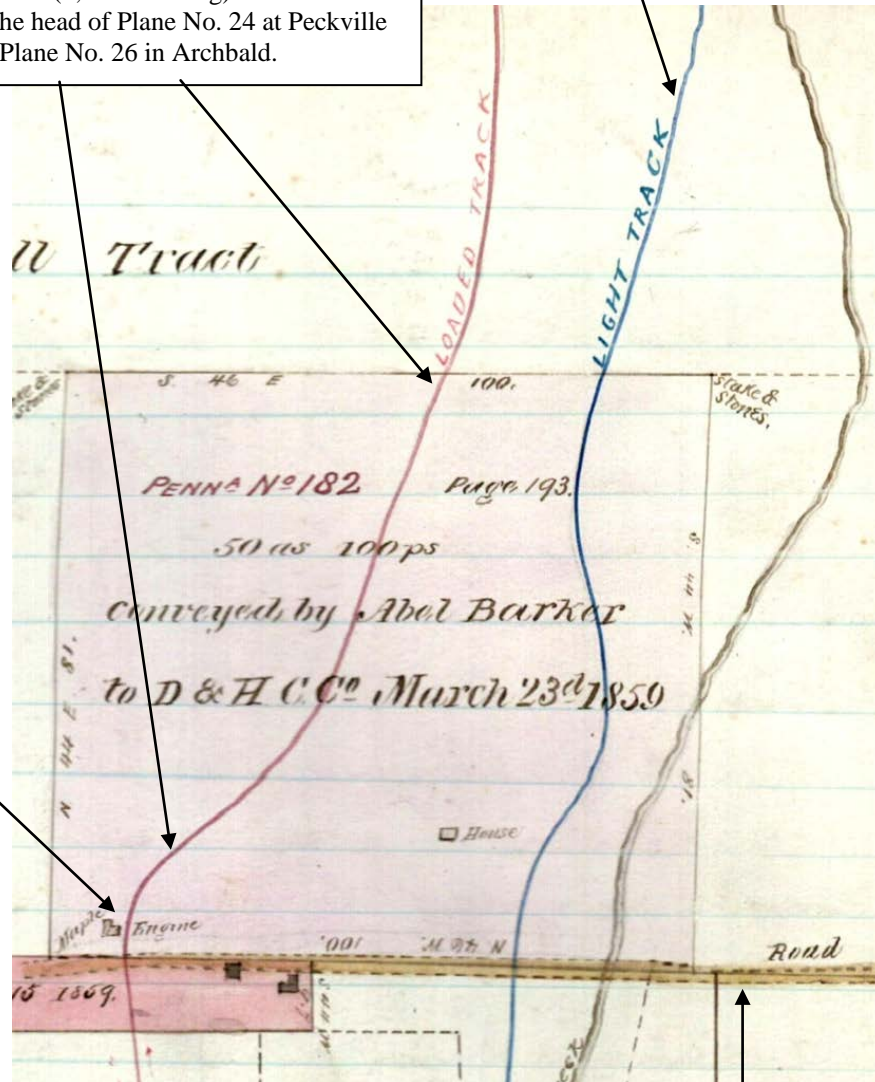
Here is a photograph of Hensel that is in the archives of the Wayne County Historical Society:



The beginning of the level from the head of “E” to the foot of “D” is shown on the map on page 195 in *D. & H. Deeds – Luzerne 2*, deed dated March 23, 1859. The deed, pp. 193-194, is between Abel Barker and his wife Phoebe Ann Barker and The Delaware and Hudson Canal Company. The Loaded track going North and the Light track coming South, in “South Archbald” (south of the Buckhorn):

Level 24 (4,790 feet long), Plane No. 25 (1,080 feet long), Level No. 25 (8,248 feet long) = the loaded track between the head of Plane No. 24 at Peckville and the foot of Plane No. 26 in Archbald.

Level No. 21 on the light track, coming down to Peckville from Archbald



Engine house at the head of Plane No. 24

My guess is that this "Road" still exists. If so, what is its name?

Accidents, Facts about the Plane, Daily Life (Plane and Level 24)

James Colvin killed on Plane E:

“A fatal accident occurred on plane E on the D. & H. C. Co.’s Railroad on Thursday morning. James Colvin, a carpenter was run over and instantly killed. / He resided at Peckville, and leaves a widow with four young children.” (*Carbondale Advance*, April 18, 1868, p. 3)

George Treverton was headman at No. 24 at one time:

“There have been many changes on the gravity here [DOWN THE VALLEY - Peckville] since Jan. 1 [1882]. . . George Treverton, headman at No. 24, has gone to work with Foreman English’s gang of carpenters in the coal department.” (*Carbondale Leader*, February 3, 1882, p. 4)

Hungarian killed at foot of E:

“A Hungarian, whose name we did not learn, was instantly killed by the cars near the foot of E. on Monday last.” (*Carbondale Leader*, July 27, 1883, p. 2)

William Babcock injured at the foot of E:

“William Babcock, conductor of a Peckville train, was seriously injured last Monday, in the foot of E, by having a sling thrown from a platform which struck him upon the head. He was insensible for some time, but his injuries are not of a dangerous character.” (*Carbondale Leader*, November 9, 1883, p. 3)

Culm now being dumped at Plane E:

“Jones, Simpson & Co’s engine house at the head of the culm plane was destroyed by fire last Sunday about two o’clock p.m. The rope and drum used in hoisting the culm cars are damaged beyond repair, otherwise the engine and machinery are all right. It appears that the culm in proximity to the engine house has been on fire for years and on Sunday it reached the building and the result was its total destruction. The company are now shipping their culm over the D. & H. gravity road and dumping it at Plane E. This is the first fire here [Archbald] in many years, hence it caused much excitement.” (*The Citizen*, April 30, 1884, p. 2)

Three round trips daily between Peckville and Carbondale:

"He [Byron N. Peck, born in Hyde Park, Scranton, on March 7, 1857; grandson of Samuel Peck, who founded the Peck Lumber Company, and after whom Peckville was named] went to the gravity road, of course, for there was no other railroad in the valley at that time, and gained his first knowledge of the work from Abner Amey, a boss runner between Peckville and Carbondale. Three round trips were made daily, coal being hauled in one direction and 'lights' in the other. The trip from Peckville was over the E plane on the loaded track and continued via the various planes and levels to the switchback above Carbondale, and was completed over plane 28. William Grant was the middle runner. / The boss runners then working out of Peckville, as he recalls them, were Richard Derrick, Dave Tuttle, Abner Amey, U. S. Thorpe, and Bill Babcock, none of whom are living now [1925], and he worked with all of these. In all of his years on the

gravity road, however, he never crossed the mountain, working only to the switchback and to Carbondale." (p. 3) ("Belongs to Interesting Group," biographical portrait of Byron N. Peck in *The Delaware and Hudson Company Bulletin*, October 1, 1925, pp. 3-4)

Willard Newton, who was born in Peckville, PA on June 10, 1863, in remembering his early experiences of working on the Gravity Railroad ("Accidents Were Frequent," *The Delaware and Hudson Railroad Bulletin*, January 1, 1936, pp. 3-4) remembered the "three-round trips routine" from the Mid Valley to Carbondale as follows: "After completing the course in the grade school at Peckville, Mr. Newton applied for a position on the Gravity and, at the age of 16, was hired by 'Bill' McMullen, to work for \$1.55 a day. He was immediately made a runner, operating gravity trains between Olyphant and Carbondale. Reporting for work at Olyphant in the morning, he took part of a train of empties south to the foot of 'G' plane, where he picked up a string of loads for the run to Carbondale. The entire train was divided into three sections: he, as headman, took the first 20 cars, the middleman rode the next cut of 20, while the 'boss runner' operated the remainder. / When his string of loads had been assembled at the foot of 'G,' he rode the first cut up the plane, waiting there for the balance. When the entire string had been hoisted up the plane, he rode them across the level to the foot of 'E' at Peckville. The operation was repeated at 'D' plane, between Peckville and Archbald, and at 'A' and 'B' planes in Archbald. At the head of 'B,' above Archbald, he waited for the middleman and 'boss' to overtake him, whereupon all the cars were coupled together for the balance of the run [down Level No. 27] to Carbondale. / On the return trip the cars ran by gravity to the foot of 'C' at Archbald and from the top of that plane they 'free-wheeled' [to the foot of Plane 22 in Peckville, and from the head of that plane they rolled by gravity] back to the foot of 'G.' Three round trips constituted a day's work." (pp. 3-4).

935

Plane No. 25 "D"

--the second of the two loaded planes that carried the loaded cars from Peckville to Archbald.

Level 24 (between the head of Plane 24/E and the foot of Plane 25/D) curves to the northeast on the plateau after the Head of E and then goes North to the foot of Plane D (Plane D may have been on the path followed by a pole line there today). Plane D went up towards Archbald on the eastern side of the Archbald mountain; it didn't go all the way to the top because it didn't have to in order to get the necessary grade for Level 25 to go all the way to the foot of No. 26 in Archbald. In the Hensel view given below, looking down No. 25, there is a cut of loaded cars at the foot of the plane. Level 24 (behind that cut of loaded cars) curves (as described above) as it heads North to the foot of No. 25 (this can be seen in both Hensel 1134 and Hensel 1135).

Hensel has two photos from the head of Plane 25:

1134, 1135: *Views of Gravity Road from Head of No. 25 Plane*

Here are those two photos:

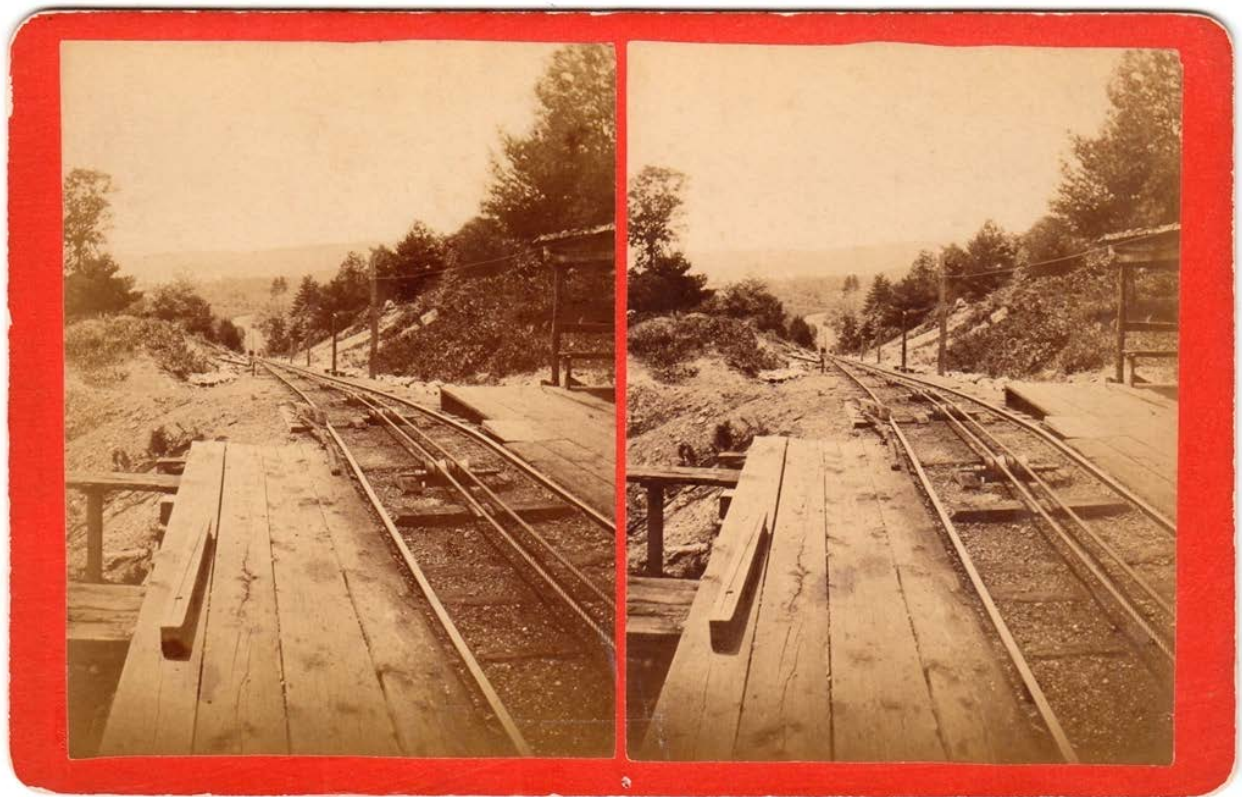
No. 1134

1134, 1135: *Views of Gravity Road from Head of No. 25 Plane*



No. 1135

1134, 1135: *Views of Gravity Road from Head of No. 25 Plane*

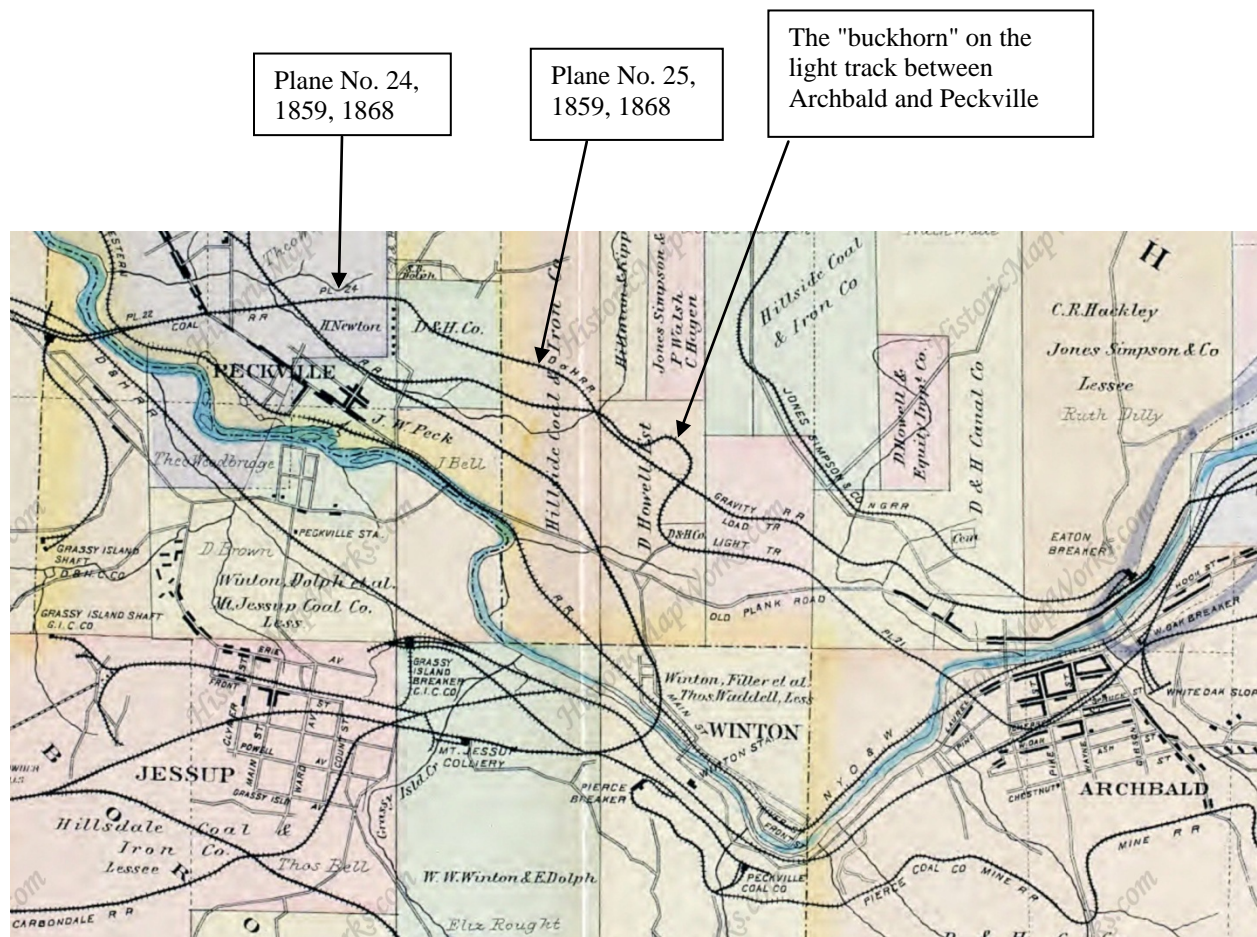


Where was the head of Plane No. 25? Not yet known. What we do know is that the Germans had a picnic ground not far from the head of No. 25. We know that from the following picnic announcement:

“The Germans will hold their annual picnic on their grounds near the head of plane ‘D,’ July 4.”
(*Carbondale Leader*, June 15, 1883, p. 3)

The Germans in question were perhaps associated with St. Luke's Church/German Evangelical Lutheran Church in Archbald? Their original church, which burned down twice, was on Hill Street; later the Lutherans built a church on Main Street.

Plane 25 was long: 1,080 feet, with a rise of 101.70 feet; and so was Level 25: 8,248 feet (1.56+ miles), with a descent of 68.82 feet. The loaded track between Peckville and Archbald (Plane 24, Level 24, Plane 25, Level 25) are shown on the detail of Plate 11 from the 1894 Baist map of the Wyoming and Lackawanna Valleys given below:



Plane 25 [also known as D]: The stationary engines that were installed here in 1858 are the ones that used to be on Plane 5 (1843 Configuration). In 1862, they were moved to Plane 22, when a larger engine was installed on Plane 25--see the note given above on Plane 22.

Engineers at the head of the plane:

“No. 25, near Archbald locomotive tracks, Winsor Foster [engineer].’ (*Joslin/Davies*)

On Level No. 25, not far from the foot of No. 26 plane, Hensel took View #1137: *View of Archibald [sic] and Coal Beaker, seen from Railroad*. (One-half of the stereocard, in the collection of the Carbondale Historical Society).

In this view, the pay car *Passaic* and a group of men are in the left foreground. On the right, in the distance, is (as shown on the 1873 D. G. Beers map of Archbald) the Eaton & Co. Breaker.

This view was shot by Hensel on the loaded track on Level 25, in Archbald, between the head of No. 25 (between Archbald and Peckville) and the foot of 26 (in Frogtown, Archbald).



Here is the photograph by Johnson (Scranton, PA, 1860) of the Eaton & Co. breaker in Archbald on Level 25 (which descends to the right in this Johnson view, toward the foot of Plane 26). Ed Casey, 05-13-2013: "The Eaton breaker was part of Jones & Simpson Company." This original Johnson photograph is in the archives of the Wayne County Historical Society:

EATON & CO.'S BREAKER,
(ARCHBALD,)
 DEL. & HUDSON CANAL CO.



The Eaton Colliery:

"The Eaton Colliery. / --In the year 1856 Edward Jones, Alver Eaton, George Simpson and Dr. Robert Westcott formed a partnership under the firm name of Eaton & Co., and opened the drift that is still known as the Eaton mine, shipping during the year about 30,000 tons and since that time 2,500,000 tons. Dr. Westcott retired from the firm in June, 1860, disposing of his interest to Edward Jones and George Simpson. Mr. Eaton remained the head of the firm until his death, which occurred May 24th, 1874, when the surviving partners purchased the interest of his estate, and they have conducted the business under the name of Jones & Simpson. The breaker was built in 1860, with a capacity of 750 tons daily, the colliery producing about 550. One pair of forty horse and four thirty horse power engines are in use, with two steam pumps and a powerful ventilating fan driven by two engines. The total number of men and boys employed is 305. The vein worked is the Archbald, known in Scranton as the 'Clark.' The headings extend two miles through tracts of C. B. Hackler, Ruth and Prudence Dilly, D. Howell, the Equity Improvement Company, Delaware and Hudson Canal Company, Nathan Wagner and Jones & Simpson, the last firm owning 105 acres. The foreman have been Alver Eaton, James Liddle, George W. Eaton

and John Whyte, the last two being in charge in 1880. The company owns besides the colliery buildings an engineer's house, office and store building, and conducts a general store under the name of Jones, Simpson & Co. J. J. Williams is the silent partner and business manager." (1880, pp. 463-64):

John B. Lack worked for Jones, Simpson & Co.:

"JOHN B. LACK was born in England, in 1836, and came to America in 1854, settling in Minersville as bookkeeper for Charles Britton, and his successor, William DeHaven, coal operators. He afterwards removed to New York city, where he was engaged in the coal trade ten years. He came to Archbald in 1870, and entered the employ of Jones, Simpson & Co., as confidential clerk. On the erection of the borough government he was elected the first burgess. He is married and has two children." (1880, p. 464C)

John Whyte was outside foreman at the Easton colliery:

"JOHN WHYTE, mine foreman, was born in Dumfries-shire, Scotland. Coming to America in 1869, he settled in Ransom township, removing to this place [Archbald] in 1870, where he was married in May, 1872, to Sarah Wills. He has three children. He was weighmaster at the Eaton colliery until 1878, when he was appointed outside foreman, which position he now fills." (1880, p. 464D):

Ed Casey, May 13, 2013, speaks of the Eaton Mines:

"The Eaton mines were established on the West mountain above Main Street in the summer of 1856. To get the coal to the Gravity cars [on the other side of the Lackawanna River before Planes Nos. 24 and 25 were built] an inclined plane, running parallel to the mine opening, was constructed on the hillside. A trestle was built to carry the cars, pulled by horses, over the river to connect with Planes Nos. 1 and 2."

George Simpson worked for Easton & Co. at one time:

In 1880 (p. 464A), we read the following about George Simpson: "George Simpson came from Carbondale, Pa., [to Archbald borough] in 1858. He commenced business at Archbald as a member of the firm of Eaton & Co., and was one of their successors, the present firm of Jones, Simpson & Co. He is an active, public spirited man, and takes a lively interest in the welfare of the place of his adoption. He is one of the principal owners of the Scranton and Carbondale Turnpike, and one of the firm of G. & A. Simpson, who own the Crystal Lake property illustrated on another page."

The obituary of George Simpson contains interesting information about the Eaton & Co. breaker and its various owners, in this instance, George Simpson:

"Death of George Simpson./ George Simpson died of congestion or paralysis of the brain, at his late residence on Centre street, Archbald, on Saturday last at 1:15 p.m., after an illness of about ten days. He was taken sick while attending a meeting of the managers of the Pierce Coal Company, at their office in Winton, of which company he was the President. He was attended by the best medical skill but the insidious disease baffled all efforts to save him. He passed peacefully and quietly away with his sorrowing relatives and friends by his bedside. / Mr. Simpson was born near Dumfries, Scotland, on the 12th day of November, 1823, and consequently his age was 60 years, 8 months and 27 days. He came to this country with his father, the late John Simpson in 1834, and located in Carbondale. For a number of years at this place he was employed by the Delaware and Hudson Canal Company as engineer, running a stationary engine. He removed to Archbald in 1847, and there followed the same employment for the same company until the year 1857, when the coal firm of Eaton & Company was organized which was composed of Alver Eaton, George Simpson and Edward Jones. Alver Eaton died in 1874, when the firm changed to Jones, Simpson and Company. The surviving partners purchased the Easton interest, who together with James J. Williams constituted the new firm, of which Mr. Simpson was a member when he died. Mr. Simpson was a successful business man. Always honest, upright and faithful in his dealings with his fellow men, he inspired the confidence and respect of all who knew him. His sterling integrity gave him the title among his friends of "Honest George Simpson." And what nobler title can there be? He had a kind, sympathetic heart and his many deeds of kindness will not be forgotten although his manly form will be seen among us no more. He was charitable in his views, as those who knew him best will readily attest. George Simpson was a noble man. He was such a man as we very seldom meet in the walks of life. He left surviving him three brothers, Andrew and William of Carbondale, Robert of Archbald (who is connected with the firm)—a sister, Mrs. Jas. J. Williams, and a niece, Miss Jennie Eaton, and innumerable friends to mourn his death. / The funeral took place from the family residence Tuesday afternoon at one o'clock, and was attended by many people from up and down the valley. Mr. Simpson was a man widely known and respected, and his many qualities of hand and heart were witnessed in the representative business men who gathered to pay their respects as his remains were committed to their last resting place. / The services, which were conducted by the Rev. Joseph Coray, Dunmore, were impressive in their simplicity and consisted well with the unpretentious simplicity of the dead man. After a prayer and the usual form of burial service observed by the Presbyterian Church, Mr. Coray pronounced a beautiful eulogy on the successful life of the deceased, and drew therefrom some impressive lessons. The services ended with the rendition of 'Jesus, Lover of My Soul,' rendered by a quartette consisting of Mrs. Watres, Mrs. Millard and Messrs. Horace E. Hand and H. W. Kingsbury of Scranton.

The remains were then taken in charge by the pall bearers, Messrs. H. S. Pierce, John Jermyn, Jere Chittenden, John B. Smith, G. L. Dickson, Alex Farnham, Charles Law and P. A. Reeves. The interment took place at Maplewood Cemetery, Carbondale, under the auspices of the Carbondale Lodge No. 249, F. & A. M., to which the deceased belonged. / The remains were followed to Maplewood Cemetery in this city by an immense concourse of friends. The Masons and Odd Fellows, to which orders deceased belonged, turned out with full ranks. There were, besides the large procession on foot, sixty carriages in the line." (*Carbondale Advance*, August 16, 1884, p. 3)

"In Memoriam. / The following resolutions on the death of George Simpson were adopted by Carbondale Lodge, No. 249, F. & A. M., at a meeting held on Monday evening, August 11th: / Our Brother, George Simpson, is dead, and we are called upon to mourn the loss that we as a Lodge, as well as his immediate relatives and friends, have sustained. His loss to us is, indeed, irreparable. He was a man that we all felt proud to be able to call Brother, and whose life as a citizen was worthy of imitation by each one of us. As a member of our fraternity he was ever ready to do his duty, no matter what that duty may have been; his heart was at all times in sympathy with his brethren, and when called upon for financial aid by the Lodge or a worthy Brother, he was willing and ready to render every assistance in his power. As a citizen his life was such that few, if any, could find fault with. Many of our citizens remember him in his boyhood days, and from that to manhood, and remember nothing in his life but was worthy of imitation. As a friend, many have reason to remember him with pleasure; he was ever true; he was seldom demonstrative in his acts of charity, and few are aware of his many self-denials to render assistance to others. And now your committee beg leave to present the following resolutions for your adoption: / *Resolved*, That in the death of Brother George Simpson, Carbondale Lodge, No. 249, F. and A. M., has sustained the loss of a worthy and honored member, and to our God, who saw fit to take him from our midst, we bow in humble submission. / *Resolved*, That we tender to the relatives and friends of our departed Brother our heartfelt sympathy in their hour of bereavement. / *Resolved*, That this Lodge be draped in mourning for the space of thirty days, in memory of our departed Brother. / *Resolved*, That these resolutions be spread upon the minutes of our Lodge, and that a copy be engrossed and sent to the family of the deceased, and that they be published in the *Carbondale Advance* and *Leader*. / John Scurry, Joseph Birkett, Wm. R. Baker, Committee." (*Carbondale Advance*, August 16, 1884, p. 3)

Another Carbondale newspaper [probably the *Leader*] published the following obituary of George Simpson. From this second obituary, we learn that George Simpson first worked for the D&H as headman at "old No. 2, where he afterwards served as engineer." **"Death of George Simpson.** / Another link which binds the present with the early history of Carbondale has been removed in the person of Mr. George Simpson, who departed this life at his home in Archbald last Saturday. The deceased came to this place in 1834, the same year that Thomas Dickson did, he was about the same age and had the same land for a birthplace. The writer has a distinct

recollection of the two deceased as schoolmates in the old school house which stood on the spot now occupied by the Presbyterian church. They were devoted friends all their lives, and these coincidences had a fitting termination in their contemporaneous decease. Mr. Simpson's first employment, as we recollect, was as headman at old No. 2, where he afterwards served as engineer. In 1847, he removed to Archbald where he was employed in the same capacity for ten years. Then the firm of Eaton & Co., in the coal business, was formed, of which he was a member. On the death of Mr. Easton in 1874, Mr. James J. Williams became a member of the firm, the name of which was changed to Jones, Simpson & Co." (a clipping in one of the Gritman scrapbooks, from a Carbondale newspaper [probably the *Leader*], August 15, 1884)

Alver Eaton

About Alver and James M. Eaton, we read the following in 1880: "Alver Eaton was born in Wendall, New Hampshire, and married Euphemia Simpson, of Carbondale, in January 1847. She died in 1858, leaving five children, three of whom now reside in that place. Mr. Eaton was again married in 1860, to a lady who survives him but is a resident of another county. The subject of this sketch was an active, energetic business man, of fine social qualities, and took an active part in developing local interests, leaving an impress on society that will be long felt. His death, which occurred May 24th, 1874, was regretted by a large circle of friends. His eldest son, George W., residing on the old homestead, is the outside superintendent of the Pierce Coal Company. / James M. Eaton, a brother of Alver Eaton, was born in Montrose, and came to Archbald about 1858 as inside foreman at the Eaton colliery, which position he still holds. He married Mary Vannan, a native of Scotland, and has seven children living: James V., a locomotive engineer at the Pierce colliery; John, a track foreman for the same company; Thomas V., an engineer at the Eaton colliery; Mary, now Mrs. William Klus; Alzina, Maggie and Charles, residing with their parents." (p.464A)

Here is the likeness of Alver Eaton that is given in 1880, facing page 454A:



The earthly remains of Alver Eaton and many members of his family are interred in Maplewood Cemetery. The author copied down the following inscriptions on the Eaton obelisk (a short distance from the Dickson obelisk; Robinson Avenue entrance) July 27, 2013:

Alver Eaton	Born	Jan 4, 1826	Died	May 24, 1874
Euphema Simpson	His Wife	Born Oct 1, 1825	Died	Jan 31, 1858
Sarah M. Whittemore	His Wife	Born Mar 29, 1838	Died	Aug 8, 1863

Jennie E. Eaton	Born	Nov 12, 1847	Died	Feb 28, 1924
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George W. Eaton	Born	Mar 3, 1849	Died	Apr 9, 1882
John R. Eaton	Born	Mar 28, 1854	Died	May 13, 1883

Andrew S. Eaton	Born	Mar 12, 1856	Died	Feb 5, 1864
Harriet S. Eaton	Born	Dec 24, 1851	Died	Feb 11, 1864

More about James J. Williams:

In 1880 (p. 464A), we read the following about James J. Williams: "James J. Williams was born in Carbondale, Pa., and married a Miss Simpson of that place. In 1864 he removed to Archbald, and became a partner in the firm of Eaton & Co., and on its dissolution in 1874 remained as partner in the mercantile department of Jones, Simpson & Co., He was one of the founders and the first president of the Archbald Water Company, and is a director in the school board. His father, Joseph Williams, came from Connecticut to Carbondale in 1835, and died at Wilkes-Barre in 1850, leaving five children. . ."

Adam V. Gerbig was the D&H station an express agent at Archbald:

"ADAM V. GERBIG, station and express agent [for the D&H in Archbald], came from Germany to America in 1852. His first occupation was that of a teacher of German. He afterward became clerk for John P. Farnham at this place, and on his retirement for Peter Walsh; and when the passenger business of the Delaware and Hudson gravity opened was appointed station agent. He married in 1855 a daughter of C. A. Miller, of Archbald, and has eight children. He was one of the board of school directors for 1880." (1880, p. 464B)

In the paper that he read at the September 4, 1915 meeting of the Gravity Men's Association in Scranton, P. A. Philbin said the following about the extension of the Gravity line to Olyphant:

"The Line to Olyphant. / The opening of the mines south of Archbald made necessary the extension of the Gravity system farther south and the building of a return line to Carbondale and Honesdale. This was undertaken in 1858. In that year work on planes A, B, C, D, E, F, and G, and the short canal leading to the foot of plane C was begun. The work was finished and the planes were in operation in 1859. All the stone work, such as bridge abutments, engine beds and

the foundation for the water wheel at plane C, was done by Godshall & Kirklin of Scranton, the stone being supplied by Richard Sweeney. It is said that there was no responsible bidder for the entire extension of the line so the work was let in small contracts to local builders. Thus, planes A and B were built by Kearney and McLoughlin; the extension from the Delaware & Hudson mine at Archbald to the foot of plane C by Patrick Martin and William Gilgallon; plane C by Edward Carroll and his son, John, and plane D by James Gay. The track leading from plane C to plane D and from D back to plane B was laid by Daniel Moyles. [Archbald Centennial book, p. 26 and p. 30: the curved stretch of track between C plane and D plane, which connected the loaded and the light tracks, was known as the *buckhorn*.] The laborers employed on this work got 65 cents for a ten hour day and the stone cutters were considered well paid at \$1.25 per day. William H. Richmond of Carbondale, still living on Richmond Hill, Scranton, was the contractor who supplied the first cars used on this division. / **Old Plane Employes.** / The canal that supplied power to plane C was the only one in use south of Carbondale. It was made by Patrick Gilmartin and Thomas Kenny. The inlet was at the foot of Salem street where White Oak creek joins the Lackawanna river. At this point the river was dammed and from this dam the canal was amply supplied with water. The first wheel tender was Edward Barber and it is an oft-told story that the fish were so plentiful in the canal that he frequently found it necessary to drive them away with a pole to give the water a chance to flow over the wheel. The water wheel was abandoned in 1865. / When plane A was placed in operation the first engineer was Alfred Sayers and the first footman was John Meyl. Sayers was succeeded by William Young, later of the Pennsylvania Coal Co., and Young was succeeded by John Samson. At plane B Dennis Blake was the first engineer and Richard Jordan* the first footman. There were no footmen at the other planes. [Why not?] William Whittaker succeeded Blake and Thomas Scott succeeded Jordan. Whittaker was followed by Perry Parsons and Parsons by Halsey Lathrope. Lathrope, on his removal to plane E, was succeeded by Clarence A. Samson. William Muir was the first engineer at C and John Fallon the second, James H. White the third and then came John Stephens. Stephens was followed by John Pfoor. 'Win' Foster enjoyed the unique distinction of serving as engineer at D from 1858 when the plane was built, until 1898, when it was abandoned. / During the forty years in which the southern division of the Gravity railroad was in operation there have been but three rope-riggers in charge. The first of these was Patrick Norton, who began work in 1859. James McGreal came here very soon after and while he was at the front in 1861, in response to President Lincoln's call for 'three months' troops, Dennis Smith assisted Norton. After the war John Murphy entered the service and for many years Norton and Murphy were the only riggers on the division. McGreal and Murphy died about two years ago while Mr. Norton is still living in comfortable retirement, in Archbald. / **End of the Gravity.** / The Gravity was scheduled to pass out of existence on December 31, 1898 but as a matter of fact, cars were run over it several days after. It is worthy of note that the last trip of loaded cars was run over the head of plane A by your President, Mr. Lorenz, on January 3, 1899 and the last trip of 'lights' was run over by Henry Simon, Jr., next day."

More on Richard Jordan from 1880 (p. 464C): "RICHARD JORDAN came from Ireland to America in 1847, and settled here [Archbald]. He has eight children, of whom James J., born in 1852, is residing with his parents and is a headman on the gravity road [which plane?]. The latter has been president of the Archbald school board and his father borough [Archbald] treasurer since 1878."

[Some additional paragraphs of insertions at this point in the Philbin amended article for the *Archbald Centennial* book. Here are those 1976 additions: ". . . At its abandonment, the Gravity was valued at \$3,500,000. / On Tuesday, January 3, 1899, the last trip of loaded cars was run over Plane A by George Lorenz. W. A. Gilmartin unhooked the last trip and the cars were run out by William Callaway. The last 'light' trip was run over by Henry Simon Jr., also on this trip were George Lorenz, Henry Roth, Sr., William Peters, A.V. Thorpe, W. O. Oliver, Coe Tuthill, John Simon. The engineers on the planes when the Gravity was abandoned were John Samson at A plane, C. A. Samson at B plane, John Pfoor at C plane and Winfield Foster at D plane. It is interesting to note that Mr. Foster also hoisted the first cars over D plane in 1859 and did not take a day vacation since he started. Henry Heckman also was on the last trip over D plane. With the closing of the Gravity 50 residents of Archbald were put out of work. The engineers were retained as watchmen at the engine houses until the equipment could be removed in the spring. / The old cars were stacked between A and B planes and it is said that there were 1500 cars stored between Carbondale and D plane. The Propst Brothers purchased the timber from the engine houses. By May 13, 1899 all the Rails and ties between D and A plane were removed and by the following week everything was gone. The cars were sold to the Bloomsburg Iron Co. and the timber from the cars, \$634,600 worth was burned, by September 16, 1899 all the cars were gone." End of 1976 additions/amplifications and back to Philbin article]

Philbin continues: "It is, perhaps, a high tribute to the efficiency of the employes of the Gravity system to state that nothing of great consequence happened on the line. Extraordinary things rarely happen when everybody is doing what he is expected to do. Of course, even the best regulated things sometimes go awry and so it has happened that an occasional wreck occurred [sic]. But the accidents were singularly free from loss of life. Considering the very hazardous nature of the employment it is surprising how few fatalities there were. One that is still spoken of with a note of sadness is the death of Chris Powderly, a brother of Hon. T. V. Powderly of Washington, which occurred [sic] at the head of plane A in 1862. Mr. Powderly was the head runner of a passenger train and was drawn under the cars while detaching a cable at the head of the plane. There were many hairbreadth escapes and many incidents, both grave and gay, to vary the monotony of work but, as Kipling says, 'that's another story'. Of these along I presume there are enough to make a large and readable volume and it is to be hoped that at some time in the near future an effort will be made to gather them for printing. / The custom of holding re-unions of this nature is one to be encouraged. It serves to make the Gravity an active agency of good fellowship. It enables the old employes to keep in touch with one another and to renew bonds of

friendship formed long ago and likely to grow in fervor as the years roll on. Gradually your membership is thinning. In a little while there will be few here of those we look upon to-day, for most of the old Gravity men are well past middle life. Some have already gone over the line dividing time from eternity; others are still actively engaged in varied pursuits. Of all of them it may be said that they were an earnest and efficient body of workers, who, as a present day philosopher says, 'were blest because they found their work and did it' faithfully and well.

NOTE—This paper has been considerably amplified for printing in the *Archbald Citizen*. For much of the information it contains grateful acknowledgment is made by the writer to Mr. Daniel J. Gilmartin, Mr. James H. White and Mr. J. George Lorenz, all of Archbald. [End of Philbin article]"

Thanks to P. A. Philbin and the 1976 Archbald Centennial group, the detailed and highly important account of the Gravity Railroad in Archbald presented here has come down to us, and we are pleased to recognize and acknowledge here their fine work in preserving for posterity the history of the Gravity Railroad in Archbald.

In the Appendix: See the article titled "New Vein of Coal" (*Carbondale Leader*, July 31, 1899, p. 2): six-foot vein, Forest Mining Company, the opening will be made on the Hackley tract, a little beyond the culm pile on the west side of town.

In an undated newspaper article titled "The Celebrated Gravity Road" (probably published in the *Carbondale Leader* in the 1890s) in the archives of the Historical Society, the author reports the following fact about the extension to Archbald: "The Gravity extended only from Honesdale to Carbondale until 1846. It was then extended to Archbald. In order to get the light cars to Powderly mines before this, they were let down plane 28 [in Carbondale, in the area behind the Trinity Episcopal Church], which was then [1846] run by water, and pulled back to the mines by horses. Each horse drew four coal cars and a horse car on which he rode back."

[end of Philbin materials in the Archbald chapter]

Whiting in the *Cassier* article—which is given in detail in the introduction to the 1829 roadbed herein—uses Plane 23 in Olyphant to illustrate his points on how the Gravity system operated. Here is the appropriate portion of that article:

How did the system operate? In an undated newspaper article titled “The Celebrated Gravity Road” (probably published in the *Carbondale Leader*, in 1899 or shortly thereafter, we can deduce from internal evidence in the article, hereinafter referred to as Gritman scrapbook) in the archives of the Historical Society, the author describes the operation of Plane 23 at Olyphant. What he says of that plane is true for all of the other planes in the system with stationary engines at their head:

“The method of operating trains on the Gravity Railroad is as follows: Cars are hauled to the foot of plane 23. . . They are hauled up plane 23 in trips of five cars each, by a [steam-powered] stationary engine at the ‘head’ or summit of the plane, being coupled to a wire rope 1 ¼ inches in diameter, which rope winds around a drum in the engine house. There are two hoisting ropes on each plane, connected by what is termed a ‘tail’ rope, making altogether three ropes on each plane. The top is hooked on to one of these hoisting ropes by a five-foot chain called a ‘sling,’ the sling being caught in one of three links spliced into the rope. The rope that hoists the cars is stretched along the plane and another rope is coiled on the [large, cylindrical] drum, and unwinds down the plane as the one to which the ‘trip’ is attached winds itself on the drum as the cars go up the plane. The tail rope is always on the plane. [In the article title “A Builder Speaks about the Wheels” (*Leader* (?), Saturday, February 8, 1902, in the Gritman scrapbook, William Johnson, Sr. says “Before that time [1856], also, both light and loaded planes had to be used at the one time, the loaded cars being hoisted by power *while the empty ones carried the tail rope to the foot.* [SRP italics] In this year the endless wire ropes were substituted for the old hempen ones.”] All the stationary engines are reversible, working alternatively in the forward and backward motion. When a trip is hauled to the head of a plane it gravitates into the foot of the next plane, an average grade of 40 to 50 feet the mile being maintained from the head of one plane to the next along the entire road. The method described is that followed throughout the system. When the cars get to the summit of the Moosic mountain, at Farview, there is a sudden drop of nearly 500 feet between that point and Waymart, a distance of nearly two miles. To let the cars down this steep declivity, four planes have been built. The mode of letting the cars down is similar to that used in hoisting the, except that a large fan is stationed at the head of each plane to regulate the momentum of the t[r]ip. These fans are controlled by brake drums and operated by men stationed at the heads. From Waymart to Honesdale there is a continuous descent for ten miles, of about 44 to 50 feet to the mile, and cars gravitate down to Honesdale.”

[GEORGE A. WHITING: This is the guy who was in charge of the horses and mules for the D&H in 1837 when Thomas Dickson was first employed by the D&H. CHARLES W. WHITING: This is the guy who wrote the wonderful Cassier article on the Gravity Railroad in 1895. It wouldn't surprise me to learn that they are related. Maybe grandfather and grandson?]

In the 1850 U. S. Federal Census for Carbondale, Luzerne County, Pa., p. 695, there is a listing for "Geo A. Whiting" and family. There, George A. Whiting, a 46-year old male who was born in the state of Massachusetts, is listed as an "Agt for Co.", which is identified as the "DHCCo." His wife, Jane, age 36, was born in Vermont. Their six children: Sarah, 18, George 12, Stephen 11, Wm. 9, Washington 5, and Edward 3.

Accidents, Facts about the Plane, Daily Life (plane and level 25)

"Buster" Peck was foreman on Dave Tuthill's train:

"PECKVILLE. / "Buster" Peck, foreman on Dave Tuthill's train on the gravity, "busted 'em" last week on D level, and now there is a vacancy on said train, and "Buster" is mending busted cars for the D. L. & W. road, in their cripple shop in Scranton." (*Carbondale Leader*, September 30, 1881, p. 4)

Personnel changes on the Gravity in Peckville:

"There have been many changes on the gravity here [DOWN THE VALLEY - Peckville] since Jan. 1 [1882]. Wesley Shafer, fireman at No. 25, now runs a hoisting engine for the Rough and Ready Coal Co., near Dunmore; J. W. Samson, pulley tinker, takes his place as fireman; Bully Dunlap takes the pulleys under his charge. . . " (*Carbondale Leader*, February 3, 1882, p. 4)

Picnic grounds near the head of Plane D:

"The Germans will hold their annual picnic on their grounds near the head of plane 'D,' July 4." (*Carbondale Leader*, June 15, 1883, p. 3)

Frank Kiefer was headman at Plane 25 before "Dood" Lorenz:

"Frank Kiefer, for some time past headman at No. 25, has resigned and moved to Scranton, where he has secured employment in a machine shop. 'Dood' Lorenz new jerks slings in Frank's place." (*Carbondale Leader*, June 15, 1883, p. 3)

Win Foster worked at the head of Plane No. 25:

"Win. Foster, from engine No. 25, was the guest of his brother George, at No. 9, on Sunday last." (*Carbondale Leader*, November 2, 1883, p. 3)

Two north planes from Archbald to Carbondale:

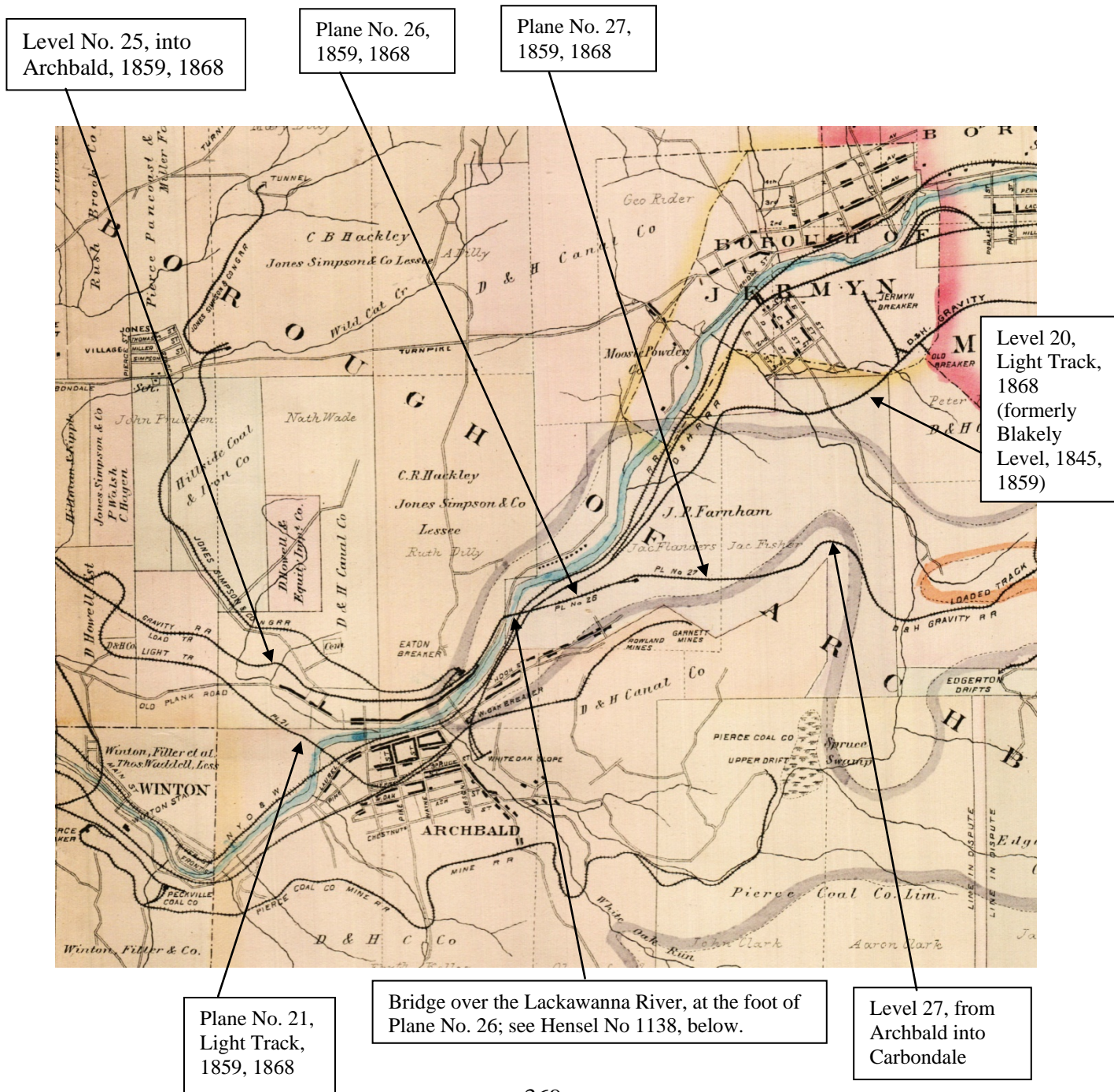
5936

Plane No. 26 "B"

Length of Plane 26: 1,863 feet; (rise 161.20 feet)

Level 26: 552 feet long, (fall 4.60 feet)

Plane No. 26 is shown on the detail of *Atlas of the Wyoming and Lackawanna Valleys. Luzerne and Lackawanna Counties, Pennsylvania*. G. W. Baist, 1894, p. 162:



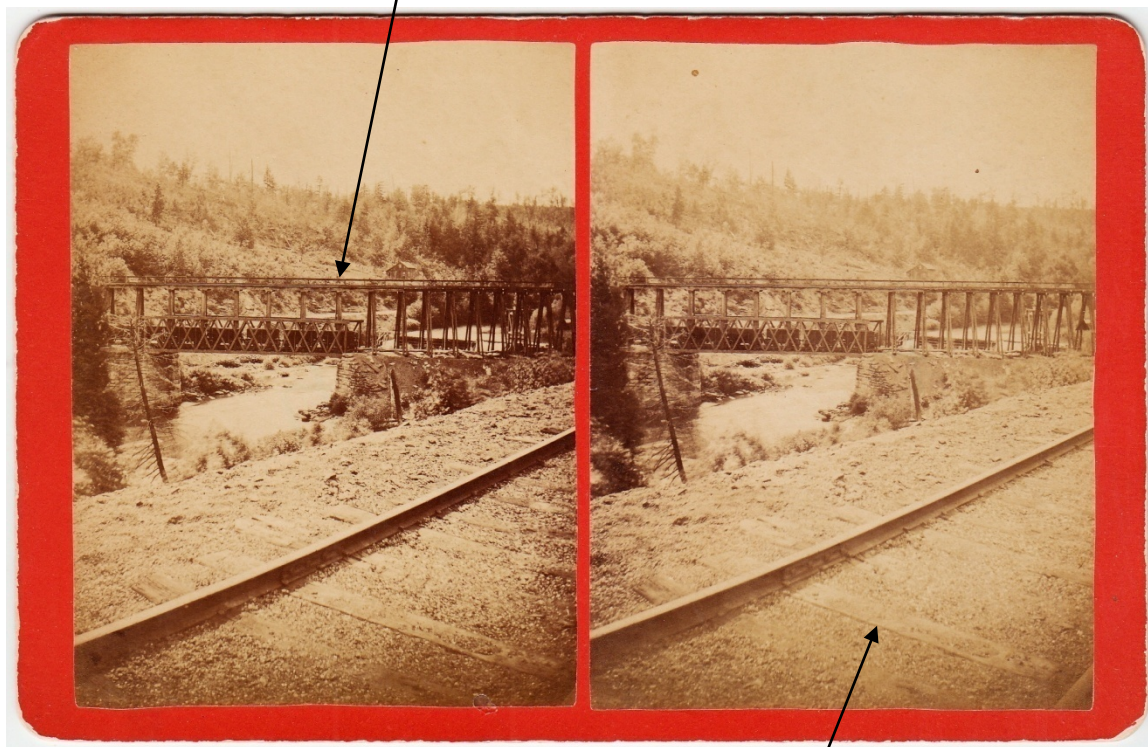
“Altitudes Again. / We are indebted to O. D. Shepherd, Esq. Chief Engineer of the D. & H. C. Co. of this city, for the following elevations, omitting fractions, above tide water, of various points on the Gravity R. R. of the Company: Foot of “B” Plane, Archbald, 913 (*Carbondale Advance*, September 17, 1870, p. 3)

Engineers at the head of Plane No. 26:

“No. 26, near Archbald, Dennis Blake, [engineer at the head of the plane] followed in order by George Whittaker, Perry Parsons, Halsey Lathrop, and Clarence Samson.” (*Joslin/Davies*)

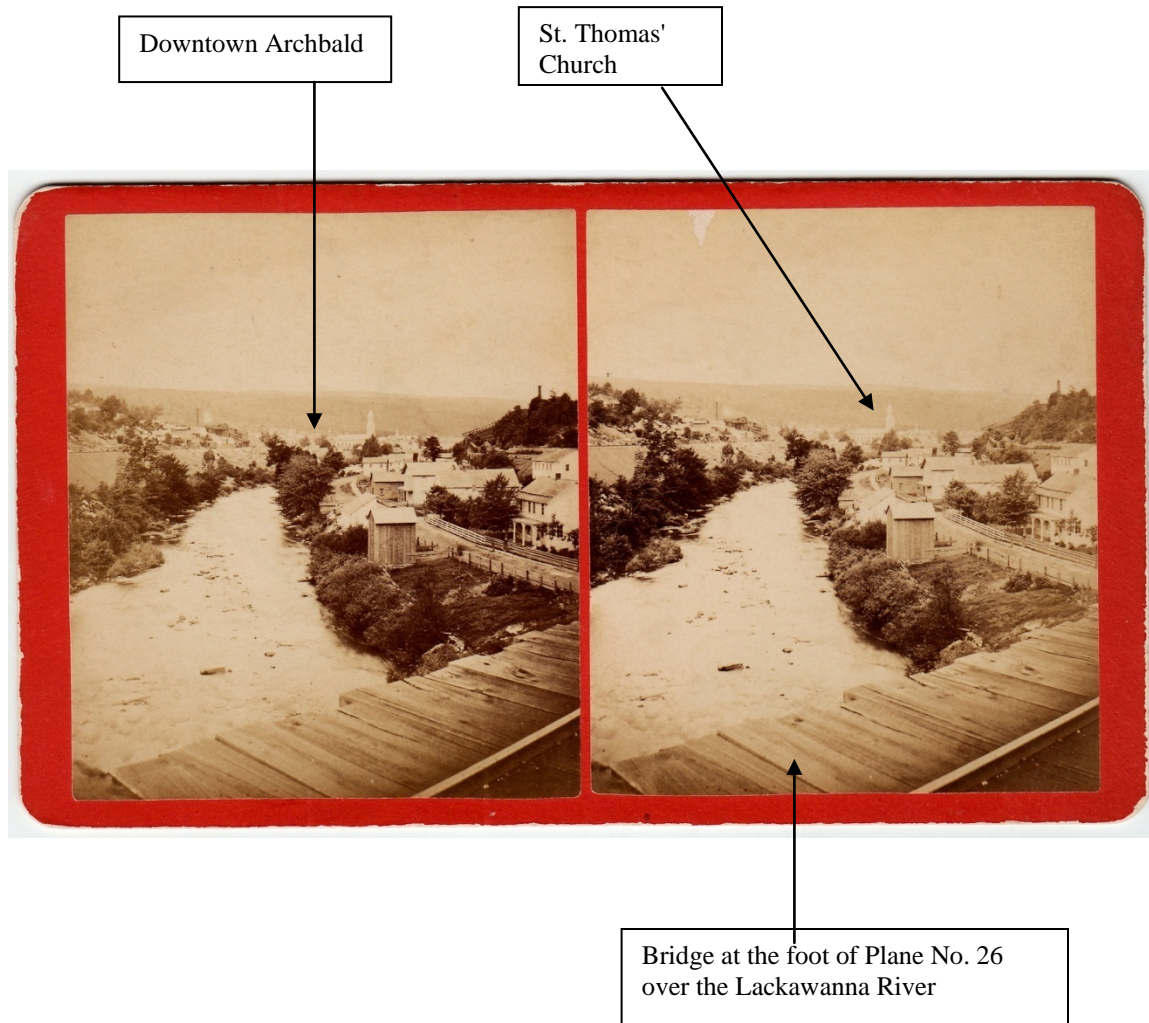
Hensel: No. 1138: *View of Railroad Bridge at Foot of No. 26 Plane.* We are looking north in this view. Hensel was standing on the D&H steam line track when he took this photograph. The steam line track and the Gravity track ran next to each other here, with the steam line track closer to the Lackawanna River. If Hensel had been standing on the Gravity track here, we would see the steam line track in this photograph.

Bridge over Lackawanna River at the foot of
Plane No.26 (1859, 1868) on the loaded track



Hensel's camera was positioned on the steam line track

No. 1139: *View of Archbald and Coal Breaker, seen from Bridge at Foot of No. 26 Plane.* In this view we are looking down the Lackawanna River. Hensel is standing on the bridge at the foot of No. 26. The coal breaker in question is the D. & H. breaker on the light track, north of the White Oak Run.



No. 1133: *View down the Lackawanna Valley from Plane No. 26.*

No. 26, "B," was the lower of the two loaded track planes up out of Archbald. The upper plane was No. 27, also known as "A." At the head of "A" the cars rolled down Level 27 from that point into Carbondale.



Accidents, Facts about the Plane, Daily Life (Plane 26 and Level 26)

Railroad hand named Daily killed on Plane B in 1868:

"**Fatal Accident.** / We regret to learn that a Railroad hand by the name of Daily, residing at Archbald, was instantly killed upon Plane B, near that place on Thursday forenoon. / He was employed in clearing the track of ice, and was knocked down and dragged forward by an approaching train, which he had not noticed, until he was crushed." (*Carbondale Advance*, Saturday, February 8, 1868, p. 3)

Jesse Baker in serious accident at foot of Plane No. 26:

“Serious Accident. / Jesse Baker, one of the runners upon the Railroad, residing here, was seriously hurt upon the Railroad near Archbald, during the storm on Monday. He was as we learn engaged in connecting a train to the rope at the foot of the Plane, when another train coming up, the cars were pushed suddenly forward, knocking him down, and rolling him over several times. The injuries are considered quite serious, but we believe not dangerous.” (*Carbondale Advance*, March 7, 1868, p. 3)

Explosion in engine house on Plane B:

"Loss of an Engine House. / The Engine House and Engine "B" on the loaded track of the Del. & Hud. R. R. between this place and Archbald, were destroyed by an explosion and fire on Monday afternoon. / This has interrupted bringing up coal from below, but the Passenger Cars have with the aid of a locomotive made their regular trips. / Although it seems incredible, as everything about "B" was utterly demolished, coal was again shipped regularly over the road yesterday." (*Carbondale Advance*, Saturday, March 27, 1869, p. 3)

Mine Foreman A. L. Green wounded in Molly Maguire shooting:

"A MOLLY MAGUIRE OUTRAGE. / On the morning of the 29th of July, 1874 [in Jermyn], during the 'Molly Maguire' reign of terror, Mine Foreman A. L. Green was set upon by three strangers, who fired nine pistol shots, bringing him to the ground wounded in three places, but not fatally. William B. Swick and his son, Robert Pierce and Charles McCracken, who were at the Jermyn mill, about fifty yards away, chased off the assailants, killed one and wounded another in the foot. The corpse being given to the physicians for dissection, persons from Dunmore claimed it as the body of one O'Malia. This and other clues brought about the arrest of the wounded assassin, and under the name of Sharkey he was convicted of an attempt at manslaughter, and sent to the penitentiary for six years and eight months. So bold was this band of murders, and so subservient were some of the local judiciary, that a warrant was actually obtained from a Scranton justice of the peace for the arrest of Robert Pierce for the murder of O'Malia, and a gang of men visited Jermyn to take him; but he had been secreted by his friends, who followed the agents of the outlaws with such pertinacity and so strong a front that they abandoned the search; after which, to avoid further complications, a formal complaint was made, Mr. Pierce taken to Wilkes-Barre, and the first session of the court discharged with a compliment for his courage and success." (1880, pp. 468-69)

John C. Peters killed in accident at the foot of Plane No. 26:

“Death of John C. Peters. John C. Peters, section boss for the D. & H. C. Co. residing at Archbald, was fatally injured by an accident at the foot of Plane 26 on Tuesday, No. 1st. He was crossing the track and seemed to be watching a train of empty cars that were going down, when a loaded train struck him, and knocked him down and run over him, breaking one limb, collarbone, three ribs, and numerous other injuries. He was taken to his home in Archbald, and died on Wednesday, Dec. 1st at 4 o'clock p. m. His age was about 52 years. He leaves a wife and six children to mourn his loss. He has an insurance of \$1000 upon his life.” (*Carbondale Advance*, December 11, 1880, p. 3)

Fireman at Plane No. 26, Chris Miller, becomes father:

1882: "Chris Miller, fireman at No. 26, came out Monday morning with a broad smile diffusing his countenance. We asked him, 'What's the matter, Chris?' 'Oh! It's a girl, ha! ha! ha!' Chris says he will buy cigars for the boys after pay." (*Carbondale Leader*, February 3, 1882, p. 4)

Fires near engines houses on No. 26 and No.27; explosion at Moosic Powder Mill:

1884: "ARCHBALD. / . . . Friday last was a day long to be remembered in this place, especially the north end of the borough, where are situated two of the stationary engines of the D. & H. gravity railroad. Fires had been burning in the woods west of town and near the powder mills since the day before; a strong southwest wind was blowing and everything was as dry as a week of the most beautiful weather could make it. A locomotive going north about 11 a.m., set fire to the brush just north of the water tank near No. 26. This soon spread until within two hours it was evident that engine house No. 27 [was in danger]. [Both engines houses, No. 26 and 27, were saved by the quick actions of the local fire company.] While all this was transpiring several buildings [the barrel mill, the pressing house, the corning mill] of the [Moosic] powder mill, one-half mile distant [at the south end of Jermyn], were blown up. . . [A]side from the shock and the huge volume of smoke caused by the fires in that direction no evil effects of the explosion were felt at this point. There was considerable anxiety lest the glaze mill and magazine [in which were stored 11,000 kegs of powder, besides large quantities of 'giant powder'] should go up which would have been equal to an earthquake on account of the vast amount of powder stored in those buildings. . . by 8 p.m. all danger seemed to be past. . . " (*Carbondale Leader*, May 9, 1884, p 3)

New water pipes at No. 26:

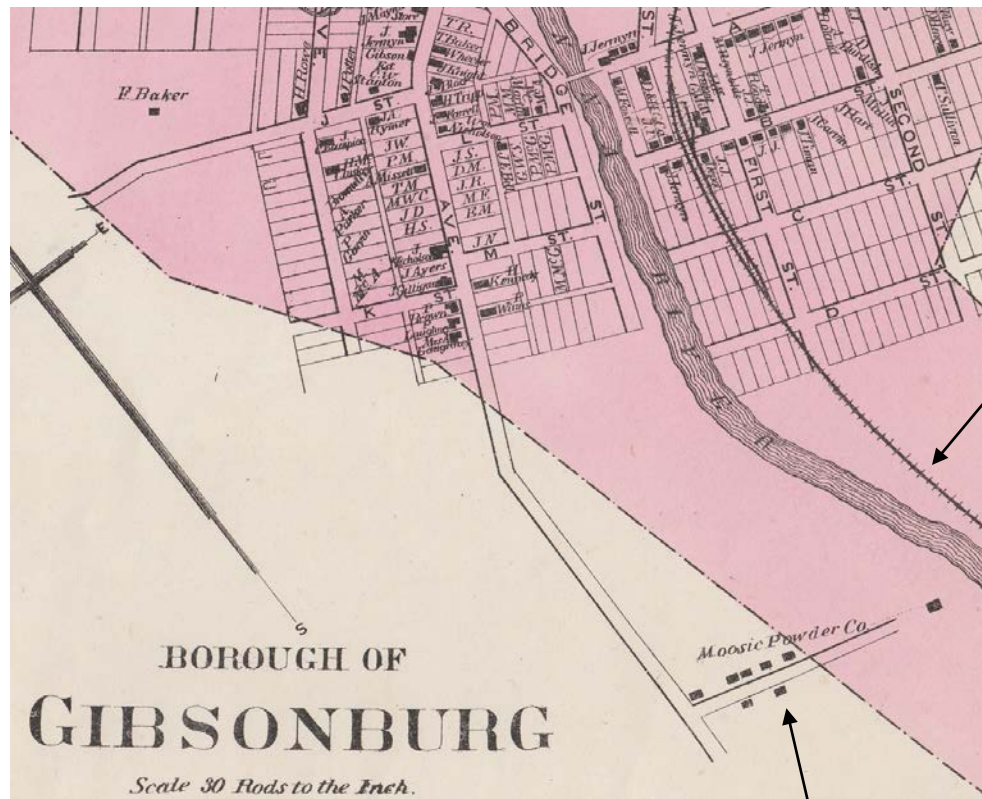
"A company of workmen, embracing men from Lippart's, Inch's and Hunter's gangs, went to Archbald on Sunday to make the necessary excavations for water pipes at No. 26 D. & H. stationary engine. (*The Journal*, October 21, 1886, p. 3)

The village of Randville:

The name of the village in which the Moosic Powder Mills, opened in 1864, were located was *Randville*.

In the February 13, 1864 issue, p. 2, of the *Carbondale Advance*, we read the following: "RANDVILLE—Passengers upon the Railroad between our town [Carbondale] and Archbald, when about five miles below town observe a considerable collection of new buildings, and often ask, What village is that? The reply is, 'Randville.' The number of buildings erected there the past season has been about a dozen, all upon the opposite side of the Lackawanna from the Railroad, and between the river and the Turnpike. The village is the seat of the new and extensive Powder Works of Messrs. Smith & Rand, in charge of G. W. Rand, Esq. The Buildings and Machinery have all been constructed under his supervision, and the works are now in successful operation. He has given them the name of 'Moosic Mills,' and 'Moosic Mills Powder' is already favorably known in the market."

The Moosic Powder Company as shown on the Gibsonburg map in *D. G. Beers*, p. 33:



Moosic Powder Company

More about G. W. Rand and Randville:

“O. W. Wight, Esq., has sold his ‘Brookside Cottage’ residence, two miles below town to G. W. RAND, Esq., Sup’t of the Moosic Powder Works, located at Randville, four miles below town. The consideration is reported at \$6,200.” (*Carbondale Advance*, July 16, 1864, p. 2)

On April 22, 1865, Thomas Dickson associated himself with a number of gentlemen who organized what was to become the Moosic Powder Company (an enormous amount of blasting powder was need for mining purposes in the Lackawanna Valley). Dickson was on that company’s Board throughout his life.

More about the Rushdale Powder Mills:

"Rushdale Powder Mills—Powder was first made here by A. T. Rand & Co., who built the first mills in 1864 and sold to the Moosic Powder Company, who enlarged and improved the works in 1872 to their present capacity of about 325 kegs daily, employing about 40 men. Thirty-five acres of land are owned by the company, ten of which are enclosed in a high fence and contain the buildings, comprising eighteen blocks so arranged as to reduce the risk of a general destruction by fire or explosion to a minimum. Great care is taken in the manipulation of materials, but the drying house exploded November 10th, 1867; another building twice in 1870 (one man killed), and May 13th, 1872, an explosion totally destroyed the works. By the explosion of the press house here, November 4th, 1873, three lives were lost, and the glazing mill blew up June 20th, 1879, when the watchman was saved by a section of a boiler falling over him and shielding him from the falling walls. The office of the mills is connected by a telegraph line with the company's office in Scranton and their mills at Moosic. A market is found in the Lackawanna valley for the entire product of the mills, and the company claim that long familiarity with the needs of miners and the use of the cartridge package enables them to produce a superior article. / The superintendents have been G. W. Rand, A. H. Boies (now president of the company) and W. S. Hutchings, the present manager." (1880, p. 468)

5937

Plane No. 27 "A"

--Length of Plane No.27: 1,558 feet, (rise 158.42 feet)

--Level No. 27: 25,673 feet long, (fall 206.26 feet)

Engineers at the head of the plane:

Plane 27: "No. 27 [also known as A], near Archbald, William Young and John W. Samson [engineers]." (*Joslin/Davies*)

The roadbeds for Planes B and A, and the rock cut at the top of the mountain, are still easily seen. The Aylesworth dam is in the middle of the loaded track from Archbald to Carbondale.

"Altitudes Again. / We are indebted to O. D. Shepherd, Esq. Chief Engineer of the D. & H. C. Co. of this city, for the following elevations, omitting fractions, above tide water, of various points on the Gravity R. R. of the Company: Head of "A" Plane, [Archbald] 1228. (*Carbondale Advance*, September 17, 1870, p. 3)

Accidents, Facts about the Plane, Daily Life (Plane and Level 27)**Alfred Sears saves child's life at Plane A:**

"On July 15th [1859], a child, aged three years, of Alfred Sears, engineer at No. A, was taken by the pump belt of the engine and carried partly under the wheel. He would have been crushed the next moment but for the presence of mind displayed by the father in stopping the engine. The

child was standing by his mother's side when caught, and before she had time to turn round he was beyond her reach. His abdomen was torn open from the upper part of one hip to the other and down to the intestines, which, fortunately, were not hurt; his throat was severely cut, the vessels and nerves laid bare. He was attended to immediately, and is now nearly well." (*Carbondale Advance*, July 30, 1859, p. 2)

Christopher Powderly killed at Plane A:

"Death of Christopher Powderly. A melancholy accident occurred upon our Forenoon Passenger Train in Blakely township on Saturday last [August 20, 1864]. As the train arrived at the Head of Plane A, owing to an error in not shutting off the steam at the proper time, it became impossible to disconnect the train from the rope revolving upon the wheel under the track. In his earnest effort to do this young Powderly [born April 9, 1843], who was employed upon the train, lost his life. Not being able to disconnect the train, and standing upon the front sill of the Baggage Car, which was broken and drawn down, he was unable to extricate himself, but was found under the Car almost lifeless. He was taken to his home in this town [Carbondale], but died in the course of the afternoon. He was very highly esteemed and respected, and his remains were followed to their final resting place on Monday by a large concourse of sorrowing friends. / No other person upon the train was injured. / The fault which produced this sad accident was wholly on the part of the Engineer or some defect in the Engine. (*Carbondale Advance*, Saturday, August 27, 1864, p. 2)

Coal inspector killed in accident at Archbald:

"ACCIDENT.—Mr. M. B. Hutchison, of the first ward [of Scranton], Coal Inspector of the Del. & Hudson Co., in jumping on the coal cars at Archbald yesterday, fell between the cars, and two of them ran over his leg, above the ankle, crushing it badly. It is thought that amputation will be necessary.—*Scranton Register*." (*Carbondale Advance*, April 6, 1867, p. 2)
p. 3)

Powderly Excursus

Christopher Powderly was the son of Terrence and Margery (Walsh) Powderly. Terrence's father was Hugh Powderly, who died in Ireland at the age of 40. Four of his (Hugh) children came to America, among them Terrence, who came to America as a young man, sailing from Dublin on March 20, 1827. "He settled near Carbondale where he engaged in farming for two years. June 18, 1829, when coal was discovered here, he moved into the city, which then had but two houses and those of logs. For several years he was employed as a miner and in 1845 opened what has since been known as the Powderly mine, and Powderly road leading to this mine was named in his honor. From 1858 to 1876 he was connected with the car shops of the Delaware & Hudson Canal Company, but in the latter year gave up active business, and from that time lived in quiet retirement. He passed away May 27, 1882 [the correct date is August 26, 1882]. In 1851, when the city was incorporated, he was one of the first board of councilmen, and in every way possible promoted the welfare of the place." (*Portrait and Biographical Record of Lackawanna County, Pennsylvania*. 1897, p. 131)

In 1826, Terrence Powderly married Margery Walsh (born in County Meath, Ireland, July 4, 1811) and they had 12 children. One of their sons, John, who was born June 21, 1838, worked in the freight department of the Delaware, Lackawanna & Western Railroad at Scranton. Four of their sons worked for the D&H (Patrick A., Hugh W., Joseph, and Christopher): (1) Patrick A., who was born in Carbondale on October 28, 1833, and at the age of 14 "became a helper in the employ of the Delaware & Hudson Company, receiving fifty cents a day. Later he worked in various capacities for the company, and since August 1, 1858, has been foreman of the switch back of the car department. He is a man of natural ability and broad views. His memory is remarkable and he is sometimes called the 'living encyclopedia' of Carbondale, on account of his familiarity with the history of the city. September 14, 1857, he married Mary, daughter of John and Margaret Gilligan. Her parents were born, reared and married in Ireland, and came to America at the same time our subject's father [Terrence] emigrated hither. Her father took a position with the Delaware & Hudson Company in 1829 and remained in their employ as long as he was able to work. He died in October, 1884, at the age of eighty-four. Mrs. Gilligan was the cook for the first men that worked in the mines of Carbondale. She attained an advanced age, dying in 1880." Patrick's wife's sister, Margaret, "was born in Carbondale December 12, 1829, and was the second child born in the place; [emphasis added] she is still living [1897], unmarried, and is now the oldest native-born resident of the town." Patrick and Mary Powderly, who lived on Eighth Avenue in Carbondale, were the parents of six children, three of them with D&H connections: Marcella married James A. Farrell, who worked in the bridge department of the D&H; Philip Hugh, born in July, 1861, worked for the D&H; and T. V., Jr., who was an agent for the D&H at Scranton. (2) Hugh W., who was born February 8, 1837, left school

at the age of 14 and "entered the employ of the Delaware & Hudson Canal Company, with whom he has since remained, being engaged in different capacities until 1864, but since then he has held the position of inspector of ropes." He married, first, in 1860, Nora Ellen Murphy, who died eleven months later. In 1865, Hugh W. Powderly then married Mrs. Patrick Henry, a widow, and they became the parents of nine children, one of whom was Christopher, who worked for the D&H in Carbondale. (It was this Christopher's uncle, Christopher Powderly, who was killed on August 20, 1864 on a D&H train in Blakely Township.) Another of the children of Hugh W. Powderly, Hugh J., also worked for the D&H. (3) Joseph, born May 5, 1841, at one time served as postmaster of Carbondale and in 1897 was serving as weighmaster for the Delaware & Hudson Railroad. (4) Christopher, who born on April 9, 1843, was killed in an accident at the head of Plane A on August 20, 1864 (see above) in Blakely Township.

Another of the sons of Terrence Powderly and Margery Walsh was the Honorable Terrence V. Powderly, who was born January 27, 1849, and who became a leading politician, mayor of Scranton, and grand master leader of the Knights of Labor; in 1897 he was a practicing attorney in Scranton.

The citations about the members of the Powderly family as well as all of the data about the Powderly family given in this Powderly excursus are from the portrait of Hugh W. Powderly and the portrait of Patrick A. Powderly that are presented in *Portrait and Biographical Record of Lackawanna County, Pennsylvania*, 1897. The Hugh W. Powderly portrait is on pages 138-139; the Patrick A. Powderly portrait is on pages 131-132.

(End of Powderly excursus)

William Wilcox in bad accident at Plane No. 27:

“William Wilcox, employed by the D. & H. C. Co., was badly injured at plane No. 27, near Archbald, on Monday. He was riding on a load of ties, when the car on which he was riding and another about to be coupled to it, came together with such force that the brake of the car he was on, flew off, struck him, and knocked him off the car. He fell on the track and a car load of ties ran over one of his legs, breaking it in two places. He was attended by Dr. Adams and conveyed to this city.” (*Carbondale Leader*, March 29, 1873, p. 3)

Sheridan Mathews hurt in accident on Level No. 27:

Death of Sheridan C. Mathews, March 1881. “Another Railroad Accident. Sheridan C. Mathews, a young man, seventeen years of age, met with a very serious accident about 6 o’clock p. m., on Washington’s birth-day. He was a laborer in George Stearns’ gang of track-hands, and was working on the Gravity Road, on the level about three-fourths of a mile North of the head of Plane A, or No. 27. The place where he was hurt is between Jermyn and Archbald, at the North end of the rock-cut, near Ball’s Mill. / On the evening in question, while undertaking to mount John Murphy’s train of loaded cars, that he might get a ride to Carbondale, his feet struck the truck all right, but he did not succeed in firmly grasping the car with his hands, and he was swung off. / It is supposed that in his fall his foot was held by the upper end of the brake block and a bolt projecting above the truck. / It is known that his falling and twisting at the same time in a contrary direction to the moving cars, caused the breaking of the two bones in his right leg below the knee, and the severe bruising of the muscles at the break, as well as a jamming of the left ankle. / The runners of the train saw Mathews fall; they stopped the cars with the utmost celerity, and hastened to his relief; they lifted him to the top of a car load of pea coal and rendered him what aid they could while the cars were being run towards Carbondale. . . Sheridan C. Mathews is the son of Peter Mathews, and until recently had lived on a farm in Greenfield. He began working for the D. & H. C. Co. about the first of February, 1881.” (*Carbondale Advance*, Saturday, February 26, 1881, p. 3).

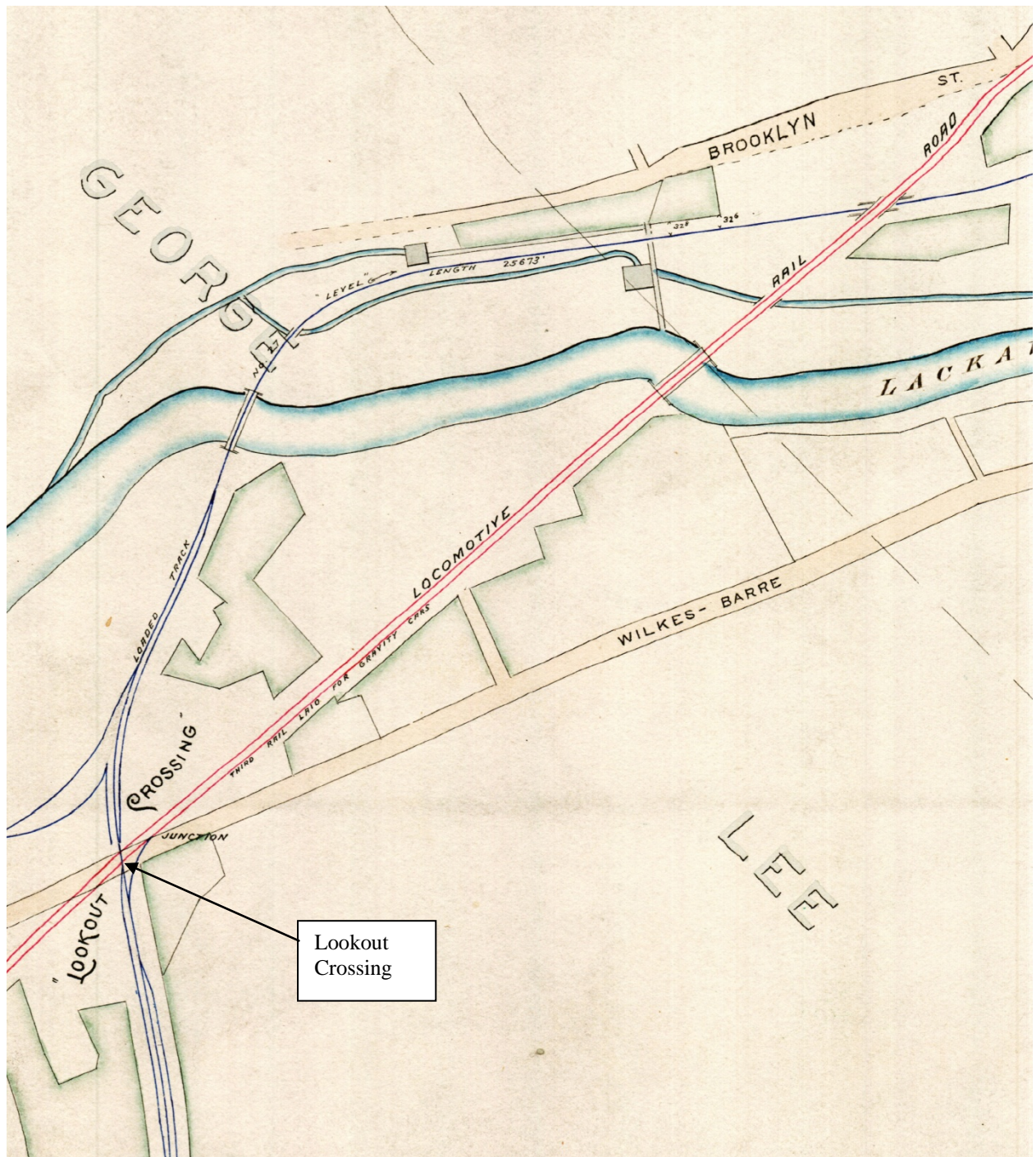
Additional interesting details about the railroad, the accident, and Mathews are given in the account of the accident that was published in the *Carbondale Leader* on January 26, 1881 (p. 2):

“. . . At the close of day’s work, about 6 o’clock, in order to get a ride home, he [Mathews] tried to jump on a train of coal cars coming to Carbondale. The trucks project out from the side of the cars and afford a foothold for such a purpose, and it is a common thing for men who acquire the art through long familiarity with the moving trains, to get on the trains while they are going at great speed. They will place one foot on the top of the truck, and at the same instant throw themselves forward and grasp the front and top of the car with their hands. Mathews attempted this and lost the hold he had taken with his hands. In the dusk, none of the workmen could see just how it happened, but the result was that his leg was very much lacerated and broken below the knee in two places. In several places the bones were driven through the flesh. The young man was put on the top of a car of pea coal and brought as far as the ‘Lookout,’ where the turnpike crosses the gravity road [emphasis added], and taken to his home on Yarrington’s hill in the

Company's wagon, as soon as that could be sent for. He was two hours on the route home. During this time it was of course impossible to get medical assistance to attend to his injuries. When he reached home, Drs. Wheeler and Bailey were procured to dress his wounds, and they took the usual measures to save his limb. It was found that an amputation was not necessary and he may yet recover the use of his broken leg. His youth is in his favor when the joining of the fractures parts is considered. It is said that he was intending to join a sleigh-ride party that evening, and consequently tried to gain time by taking an earlier train than he otherwise would. It was remarked by a man who has worked forty years on the road, when speaking of the accident, 'Not one in ten get injured in the performance of their duty.' "

* "the 'Lookout,' where the turnpike crosses the gravity road, . ." See the detail from the 1895 Gravity Railroad map volume on the following page for the exact location of the Lookout.

Sheridan Mathews (see above), who was killed as he attempted to jump on a train of loaded coal cars, planned on joining a sleigh ride party the evening of the day he was killed. Sleighing, too, could be a dangerous activity. Consider the following account of a sleighing accident in Hawley in February 1883: "FATAL ACCIDENT TO SLEIGH-RIDERS / Hawley, Penn., Feb. 27.—A sleigh ride party of 32 German ladies and gentlemen from this place last night, in a large open sleigh, slid off the icy road half a mile from town into the empty Delaware and Hudson Canal, a distance of 40 feet. All of them were injured, six of them seriously. Reinhard Warg, a merchant well known in the county, died this morning of his injuries." (*The New York Times*, February 28, 1883).



From a notice in the March 12, 1881 issue of the *Carbondale Advance* (p. 3), we learn that Sheridan C. Matthews “died on Friday of last week, and was buried on Sunday in Greenfield, near their former residence.”

New engines at Plane No.27 working well:

“The new engines that have been put in at No.27 under the management of G. W. Sampson, the assistant master mechanic of the company, are working like a charm.” (*Carbondale Leader*, September 15, 1882, p. 2)

Drum-shaft breaks on engine at Plane No.27:

“A drum-shaft broke on No. 27 engine at Plane A, near Archbald on Thursday morning and caused a delay of about seven hours in the running of coal.” (*Carbondale Leader*, November 17, 1882, p. 2)

Michael Heffron killed on A Level:

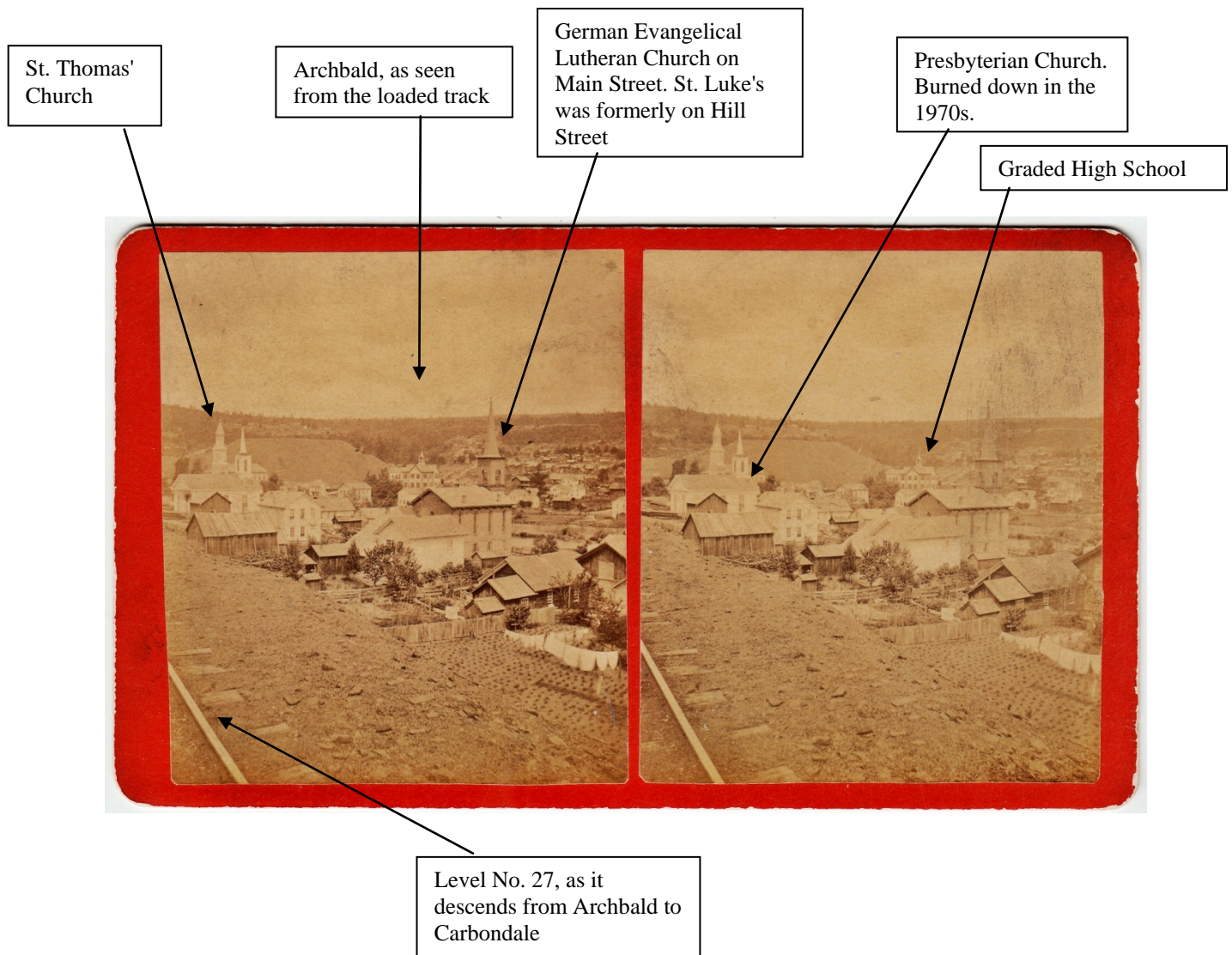
“**Killed by the Cars.** / On Wednesday afternoon at about 3 o’clock a man named Michael Heffron, living at Archbald was killed by a train of cars on the gravity road of the D. & H. C. Co. at No. 27, better known as ‘A level,’ at Archbald. He was shoveling snow from off the track with his back towards the approaching train. The train knocked him down and dragged him the length of seventy cars, face downward. He was almost instantly killed. He was about 50 years of age and leaves a wife and two children.” (*Carbondale Advance*, December 16, 1882, p. 3)

Engine at Plane No. 27 breaks down:

“Engine 27, at Archbald, broke down yesterday afternoon, but was ready to start again this morning.” (*Carbondale Leader*, December 11, 1889, p. 4)

L. Hensel: No. 1136: *View of Archbald from Loaded Track.*

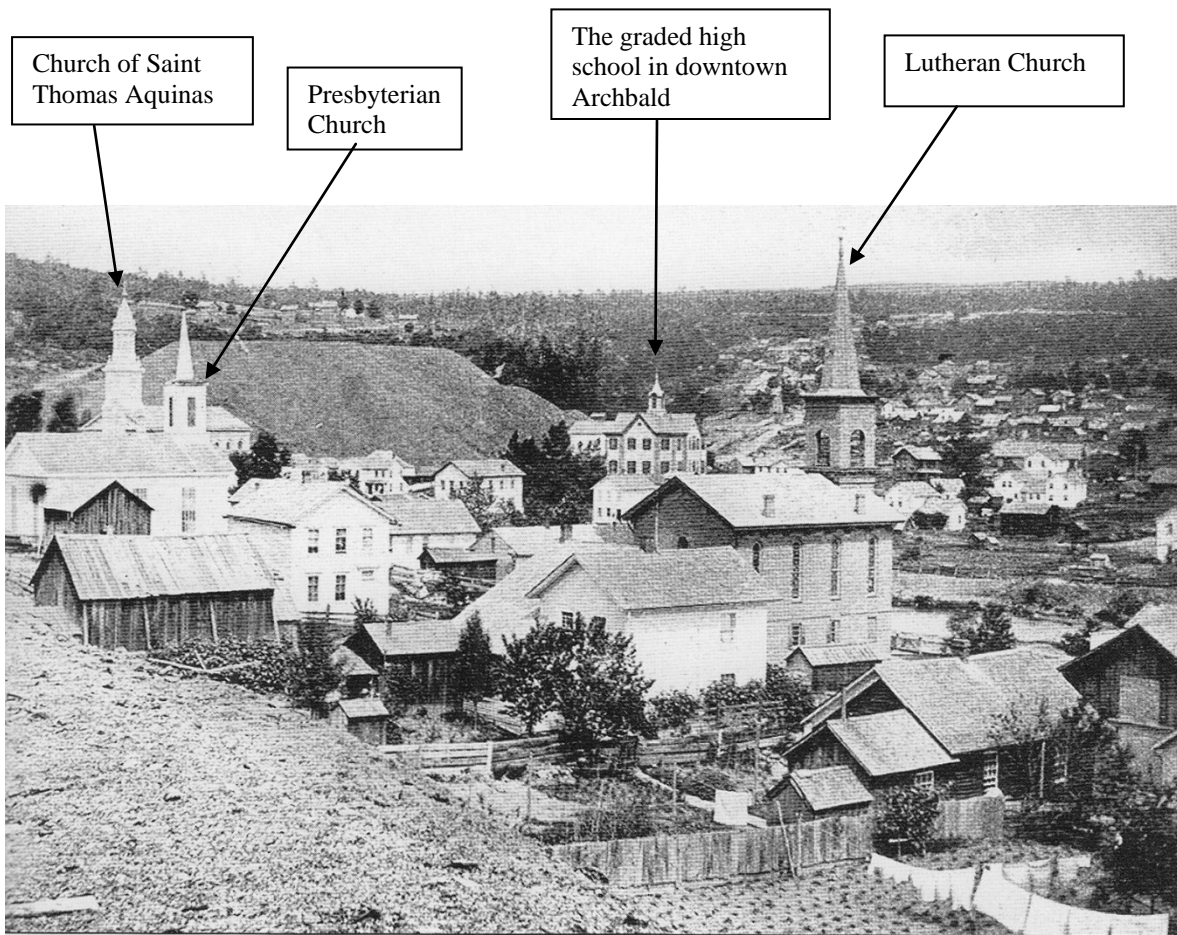
This view is taken from Level 27, which descends into Carbondale. Archbald is seen in the distance in this view.



More, from 1880 (pp. 464-65) on the First Presbyterian Church shown in the above photograph: "The first church of this denomination was organized at what was called Blakely Centre April 23rd 1839, by Rev. J. R. Moser, of Carbondale, and Rev. J. B. Graves, of Honesdale. . .[In October, 1852] it was disbanded and letters granted to such as wished to unite with a new organization then forming in Archbald. Five accepted such letters, four new members were received on profession, and the following Sabbath these nine were constituted the First

Presbyterian Church of Archbald. Rennselaer Ottman and John M. Snedecor were ordained ruling elders. From November, 1853, Rev. H. Herrick was stated supply until 1855. Then there seems no record of any regular church meetings until 1865. In December of that year, Rev. B. S. Foster commenced preaching to the church, and April 15th, 1866, a reorganization was effected. . The church now owns a plain edifice in Archbald, and has a branch organization at Olyphant with a neat chapel."

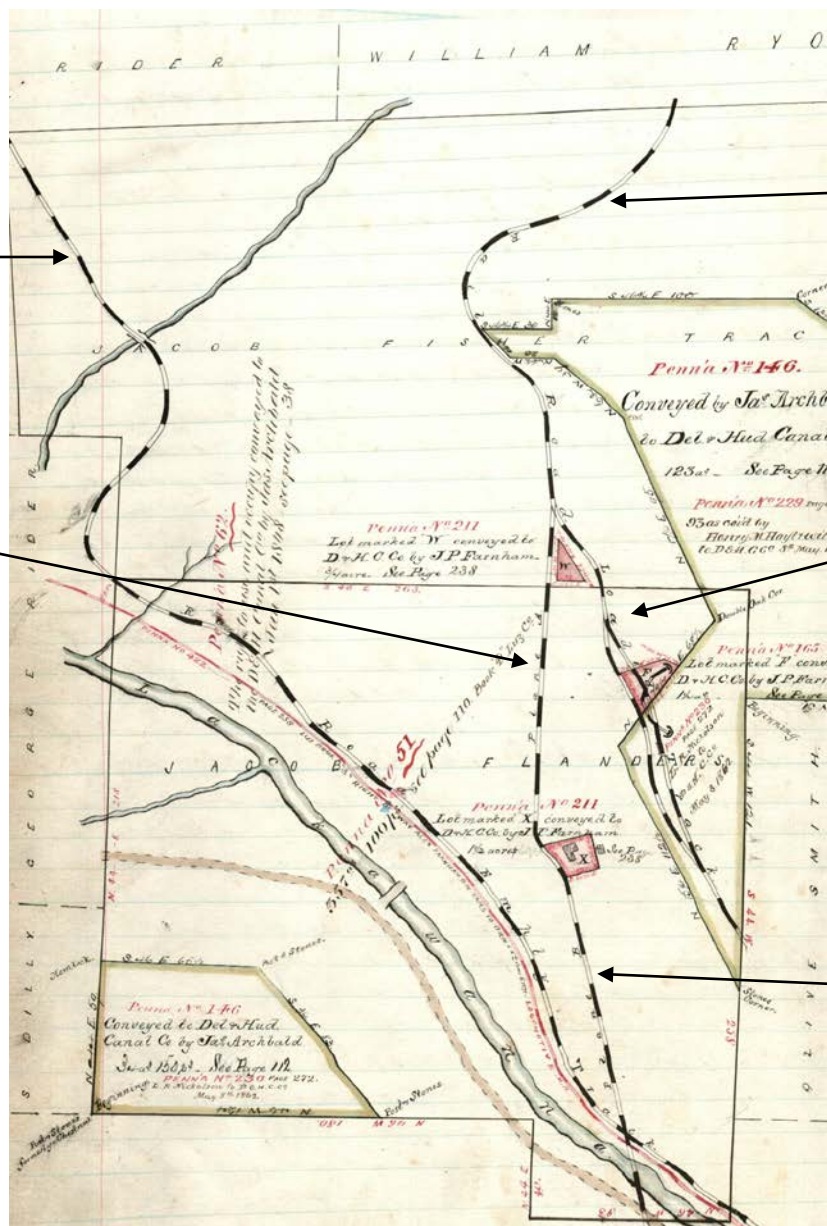
Here is a black and white detail of the above Hensel view:



More on the Church of St. Thomas Aquinas from 1880 (p. 465):

Founded through the efforts of Father Prendergast of Carbondale, and a frame building erected in 1847. The corner stone of a larger church (A. F. Amsden, of Philadelphia, architect; contractors, Eaton & Co.) was laid in 1873. "During the pastorate of Rev. N. J. McManus, in 1878, the debt on the building amounted to some \$8,000, with arrears of interest. The creditors demanded their dues. The congregation united in a request to the Delaware and Hudson Canal Company for the privilege of working an extra week (they then working only half time), to save their beautiful church from ruin, a request which was promptly granted; and for a week every man and boy worked faithfully in the mines and at the breakers. Voluntary contributions swelled the total of that week's work to \$7,500, and enabled the pastor to cancel the balance of the indebtedness at an early date. The edifice was completed in 1875, and in August of that year was solemnly blessed and occupied for the first time. The pastor and congregation acknowledge their indebtedness for repeated acts of liberality to Messrs. Eaton, Jones & Simpson, of the Eaton colliery; Filer & Livy, of Winton; Mr. John Jermyn and the officers of the Delaware and Hudson Canal Company."

In the *D. & H. Deed Book – Luzerne 2*, there is a map on page 110 that illustrates a deed, pp. 111-113, dated September 13, 1856, between James Archbald and wife and The Delaware & Hudson Canal Company. On that map are shown Planes B and A, in Archbald, as well as the beginning of the level (the snaking question-mark shaped track) between the head of No. 27 "A" and the foot of 28 in Carbondale; also the Empty or Light Track heading south through Archbald. Here is that map:



Light track
(Blakely
Railroad)
from
Carbondale to
Archbald

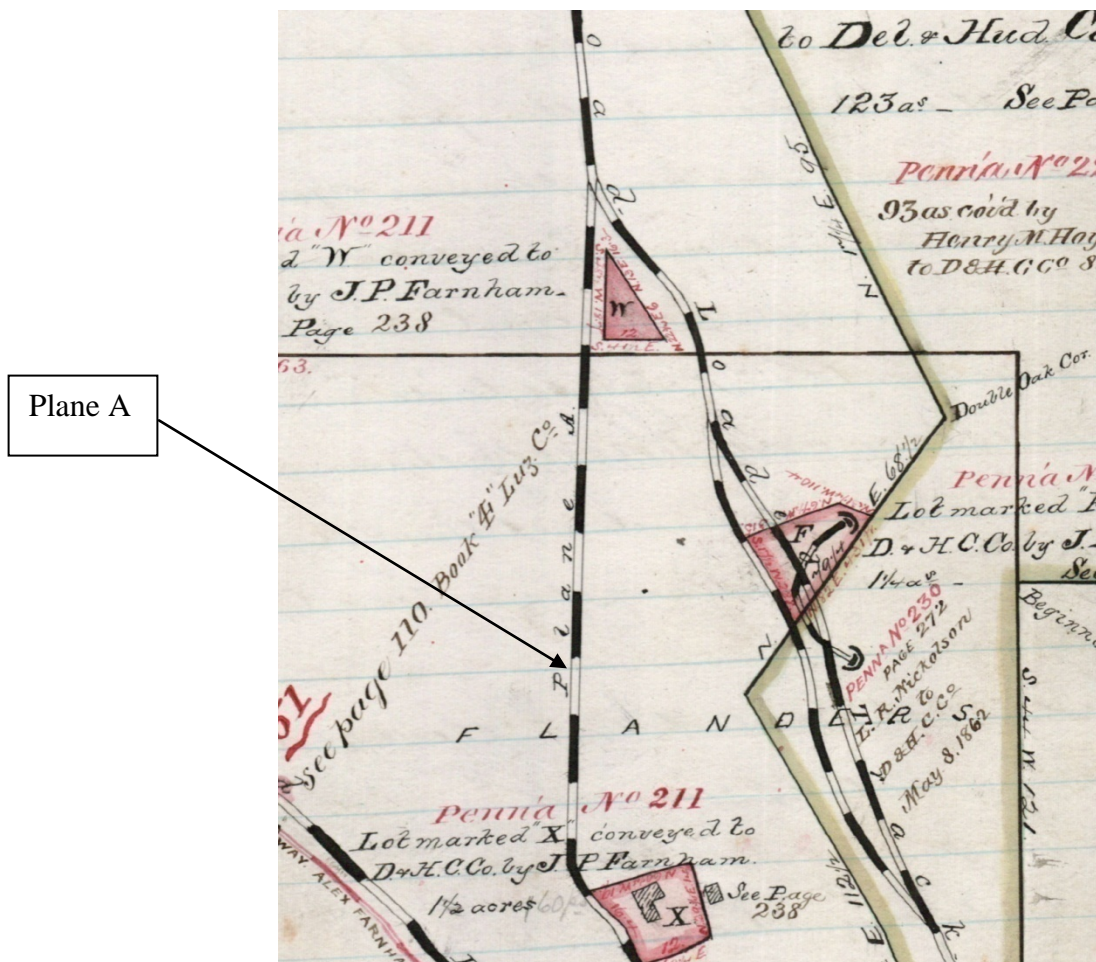
Level No. 27,
1859, 1868,
from Archbald
to Carbondale

The two "old
loaded planes" up
out of Archbald,
1845

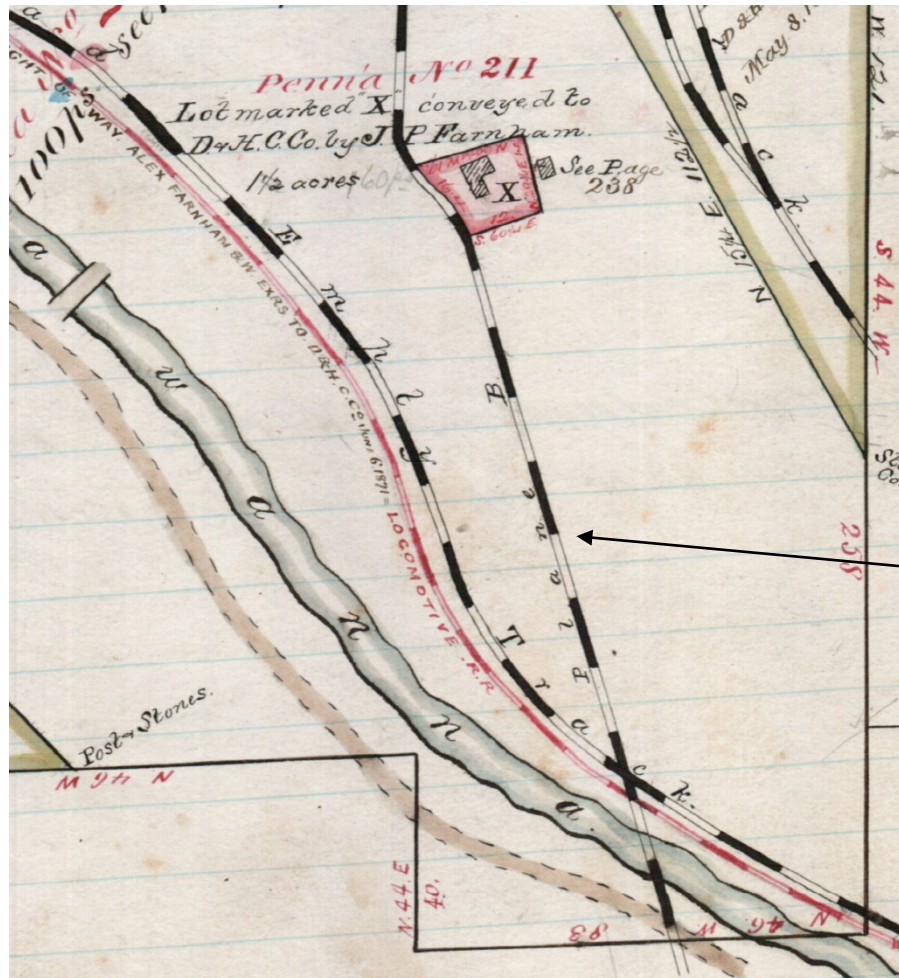
Plane B (No. 26),
1859, 1868

Plane A (No. 27),
1859, 1868

Here are two details from the above map, in the first of which Plane A is center stage:

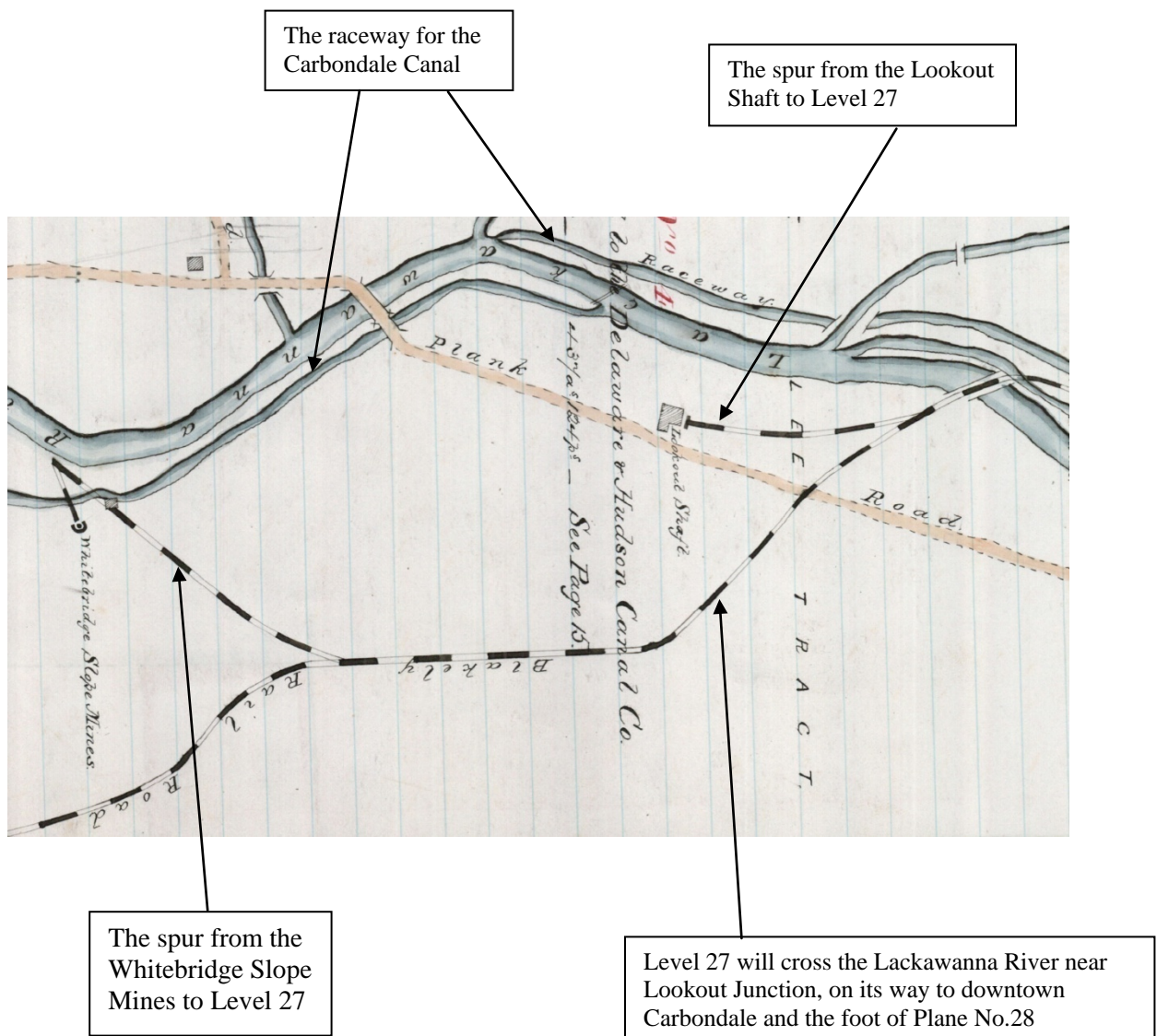


In the second detail, Plane B is center stage:

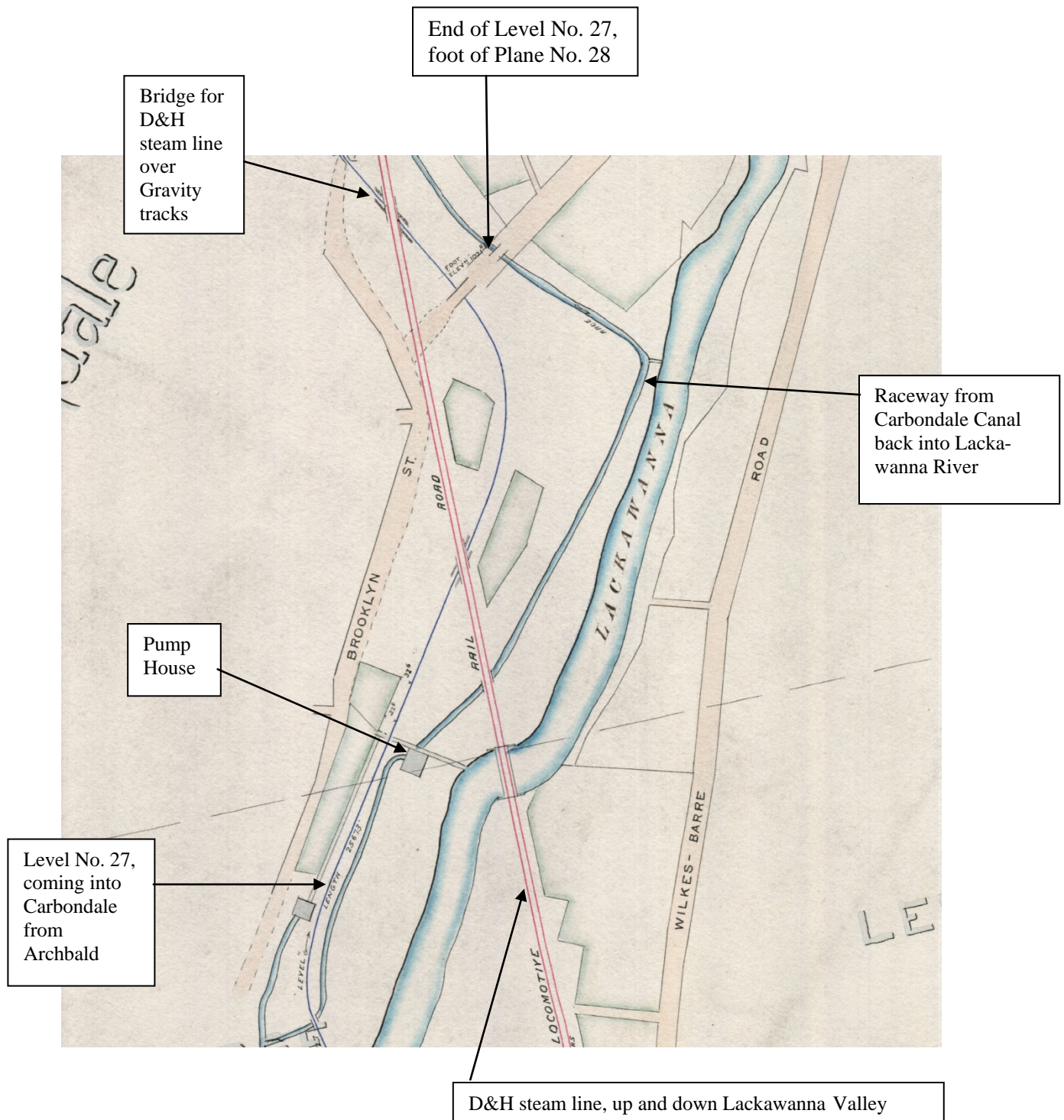


Plane B

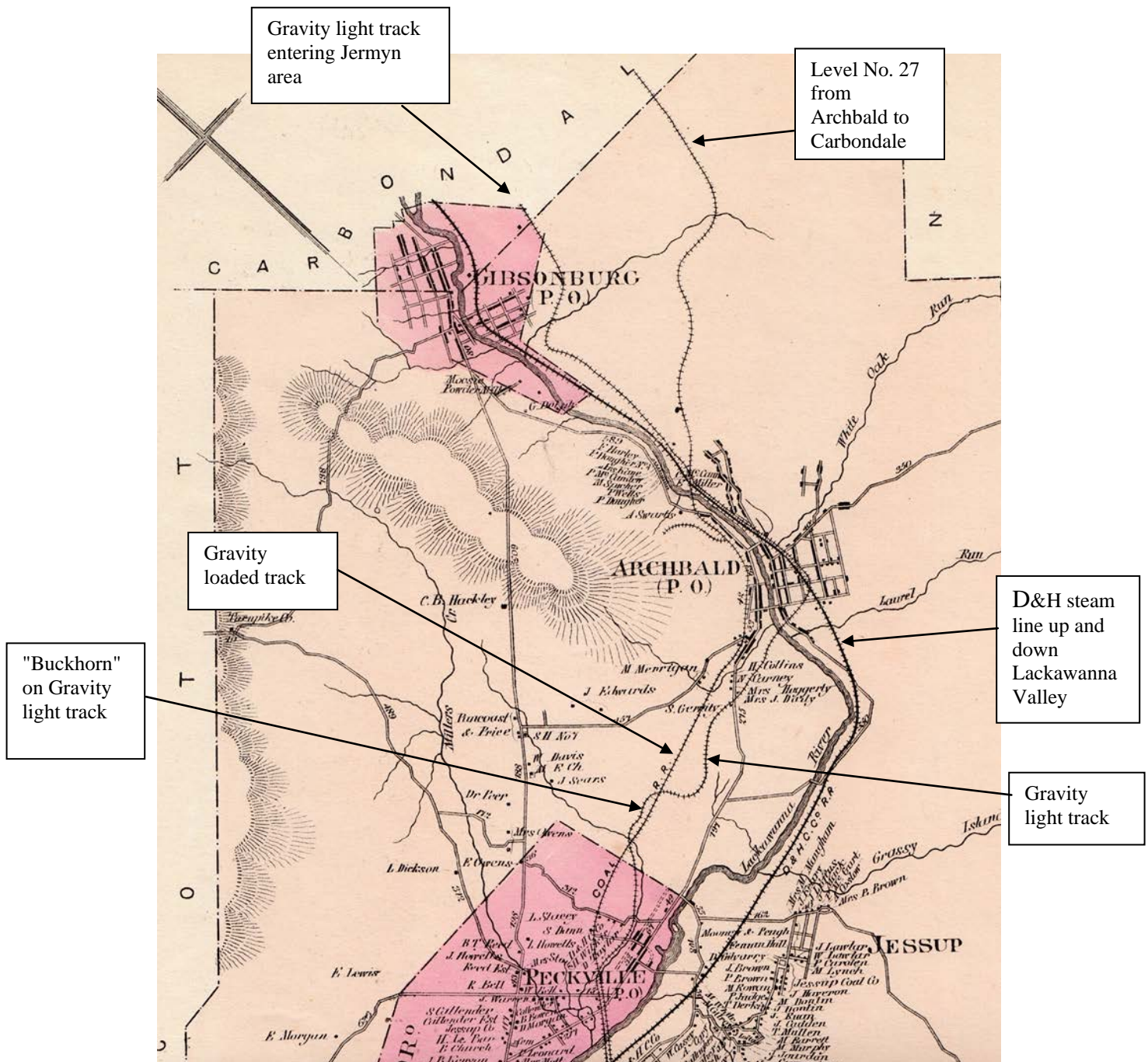
Level 27 came down the hill into Carbondale, passing through the Bushwick and Lookout sections and then on down to the foot of Plane 28. The section of Level 27 in the Lookout area is shown on the map on page 14 of *D&H Deeds Luzerne I*. That map illustrates the deed, pp. 15-16, dated November 1, 1825, between John Wurts and The Delaware & Hudson Canal Company. On the map below, “Blakely Rail Road” is upside down on Level 27 as it descends (left to right) into Carbondale. “Blakely Rail Road” here should be interpreted to mean: “the level from the head of Plane 27 at the top of the hill in Archbald (for loaded cars) back to Carbondale and to the foot of Plane 28.”

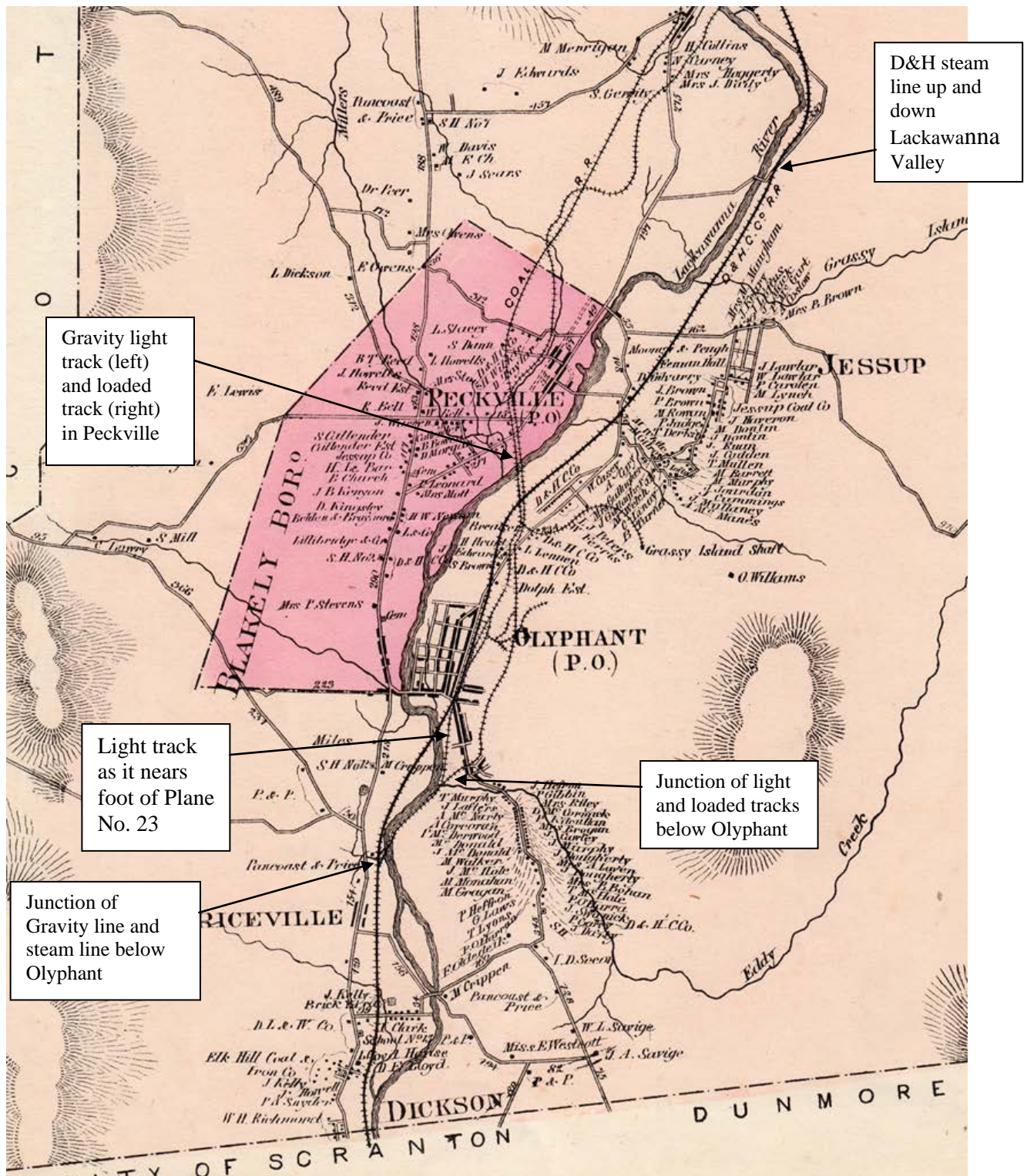


The end of Level 27 is at Eighth Avenue in Carbondale. Here, from the 1895 Gravity Railroad map volume, is a detail that shows the end section of Level 27 (also the foot of Plane 28):



Here is what they built: to Archbald and Olyphant, and return. *D. G. Beers, Blakely, p. 29* (two views):





Jermyn, Archbald, Peckville, and Valley Junction and the D&H in General at the Time of the 1859 Configuration

Peckville: In 1831, Samuel Peck and Brother built a sash and door factory and a small grist-mill upon the site where was ultimately located the extensive planning and saw-mills of Peck Brothers.

Dickson City: When Richmond and Chittenden began developing coal drifts there in 1859, this community started to grow. The borough of Dickson City was incorporated in 1875. In 1870, the population of the borough was 329; in 1889 it was 841. The primary business in 1859 was the Elk Hill Coal and Iron Company.

Incorporation of the borough of Gibsonburg:

"On the 3d of January, 1870, a petition for the incorporation of the borough of Gibsonburg was granted and a charter issued naming January 28th of that year for the first borough election. . . The borough was named after John Gibson, of Philadelphia, an extensive owner of lands here which passed into the hands of the Delaware and Hudson Canal Company in 1874, when that corporation changed the name of the railway station to Jermyn in honor of John Jermyn. This change of title was adopted by the borough and the post office department. . . The population of Jermyn was 1,156 in 1870, and 1,541 in 1880. . . Breaker No. 1 is supplied by a shaft sunk in 1857 by Offermann, afterwards operated for several years by Winton & Chittenden, and after lying idle for two years leased by John Jermyn in 1865. The breaker, built in 1860, has a capacity of 600 tons daily. Three engines and four pumps are in use, and 300 men and boys employed. Robert Carter is the superintendent. / Breaker No. 2 works coal from a slope opened in 1867, in which year it was erected. It has a capacity of 800 tons daily. The Archbald vein is here worked through some two thousand acres of the Lee, Rider and other tracts. A. L. Green is the superintendent. About 300 men and boys are employed." (1880, p. 467):

The leader of the Jermyn Cornet Band was Richard Jay:

"RICHARD JAY, a native of St. Blazy, England, came to Jermyn as a miner in 1867 and has since spent several years in California and Nevada. He married Catharine Griffiths, of Jermyn, a native of Wales, and is the leader and teacher of the well-known Jermyn Cornet Band." (1880, p. 468)

Swingle was weighmaster for the D&H for eleven years:

"A. A. SWINGLE, born in Canaan, Wayne county, has resided in Peckville since 1867, serving as weighmaster for the Delaware and Hudson Canal Company for eleven years. He married Sarah Curtis, of Salem Corners, Wayne county, Pa., and has four children. He is the acting postmaster and conducts a stationery and confectionery store in Peckville." (1880, p. 470D):

Welsh Congregational Church of Jermyn organized about 1865:

"The Jermyn Welsh Congregational Church was organized about 1865, by John W. Morgans and John W. Edwards as elders, with about 40 members. The first minister, Rev. D. E. Evans, was ordained a pastor of this church in 1866. Owing to a scattering of members, the organization was ultimately abandoned. It was reorganized in the summer of 1870, with about 30 members. Rev. William Jenkins has been pastor since July 4th, 1870. The church under his care flourished greatly for a time, but owing to the unsettled state of the coal trade over forty members have moved away. Services are held in a hall, no church ever having been built." (1880, p. 469)

D&H station agent at Olyphant was David R. Davis:

"DAVID R. DAVIS was born in Wales, but came to America in infancy. As a boy he worked in the Carbondale mines, then as a runner on the gravity road. He came to Olyphant in 1858, at the opening of the road here. He was a member of the 56th Pa. volunteers, and at the close of the war re-entered the employ of the Delaware and Hudson Canal Company as station agent at Olyphant. He married Mary Ann Thomas, a native of Wales, and has one daughter." (1880, p. 470B)

Peckville agent for the D&H was U. V. Mace:

"U. V. MACE, born in Abington township, in 1828, married Miss H. Louisa, daughter of Rev. William Frear. . . / . . He has been agent for the Delaware and Hudson Canal Company at Peckville for nine years. . ." (1880, p. 470C)

Miners' supplies were sold by J. W. Patten at Olyphant:

"J. W. PATTEN, dealer in hardware, stoves and miners' supplies at Olyphant, was born in Plymouth, Pa.; married a Miss Lewis, of Carbondale, Pa., and was engaged in mining until 1875, when he established his present business. He has one child." (1880, p. 470D):

James Jordan was a successful store owner in Olyphant:

"JAMES JORDAN [son of Patrick and Elizabeth (Dempsey) Jordan] was born in County Mayo, Ireland, January 1, 1835. . . James spent the first sixteen years of his life as a farmer's boy. He then took his pick and shovel and began to work on a railroad. Later he drove a team on the construction of the North Branch Canal. In the fall of 1856 he secured a railroad contract originally given to his uncle, but the death of the latter caused its transfer to him. / The establishment of himself in business marks an era in Mr. Jordan's life, as from that time onward

his success was rapid. The self-reliance he was called upon to exercise in his new capacity developed his character and put him on his mettle. May 8, 1859, he opened a store in Olyphant, in which he invested \$1,000 he had saved while railroading. The building was 20 x 30 feet, but after two years, feeling the need of enlarged quarters, he built an addition that almost doubled its capacity. In 1868 he rented that building and moved to his present location, where he has since increased the size of the store from 30 x 72 to 48 x 72. In 1895 he built a residence that is connected with the store. The stock which he carries and buildings are valued at \$50,000, and he has a large trade among the people of Olyphant and the surrounding country. / During the more than forty years of his residence in America, Mr. Jordan has worked his way to a position of prominence, and is now numbered among the wealthy men of Olyphant and the county. It was in 1852 that he left his native land, taking passage on a sailing vessel that landed him in New York in August of that year. He was young and inexperienced, but energetic and industrious, determined to make a success of life. Fidelity to little duties brought him increased responsibilities and opportunities, and to these he was equally faithful. . . . / August 28, 1859, Mr. Jordan married Miss Ann Monahan, a native of County Mayo, Ireland. Their family consists of five children. . . . Wishing that his children might have better advantages than had been his privilege, Mr. Jordan sent his sons and daughters to school and gave them every opportunity to fit themselves for useful and honorable positions in the world." (*Portrait and Biographical Record of Lackawanna County, Pennsylvania*, 1897, pp. 389-90, with photo of James Jordan on page 388)

Thomas Mason was the leader of the Olyphant Brass Band:

"THOMAS MASON, born in Wales, came from Gettysburg, Pa., to Olyphant in 1868. He is a miner. He leads the Olyphant Brass Band, and is secretary of the school board. He married Elizabeth Martin, of County Cornwall, England, and has two children." (1880, p. 470C)

Olyphant Welsh Baptist Church organized in 1859:

"THE WELSH BAPTIST CHURCH [of Olyphant] was organized November 1st, 1859, by Rev. Theophilus Jones, of Scranton, with the following members: David J. and Mrs. Mary Powell, Robert and Mrs. Emma Thomas, David Jenkins and wife, Richard Davies, Thomas Bowen, Thomas Williams and wife, Daniel Stevens and wife, James Stuart, David Watters and wife, Frederick Lloyd, Evan Mills and wife, Margaret W. Edwards. Ann Griffiths, John Williams and wife, Rachel Nicholas and Ann Morris. / The first minister, Philip L. Davies, served this church and one at Carbondale a year. . . . / The church building, a frame structure 32 by 40 feet, was commenced in 1870 and dedicated June 16th, 1872. Its builders were Samuel & Sanders, of Pittston, and it cost \$2, 627. The membership in 1880 was about 40. / The Sabbath-school was organized in 1859, with thirty scholars and D. J. Powell as superintendent. At one time it numbered 140." (1880, p. 471)

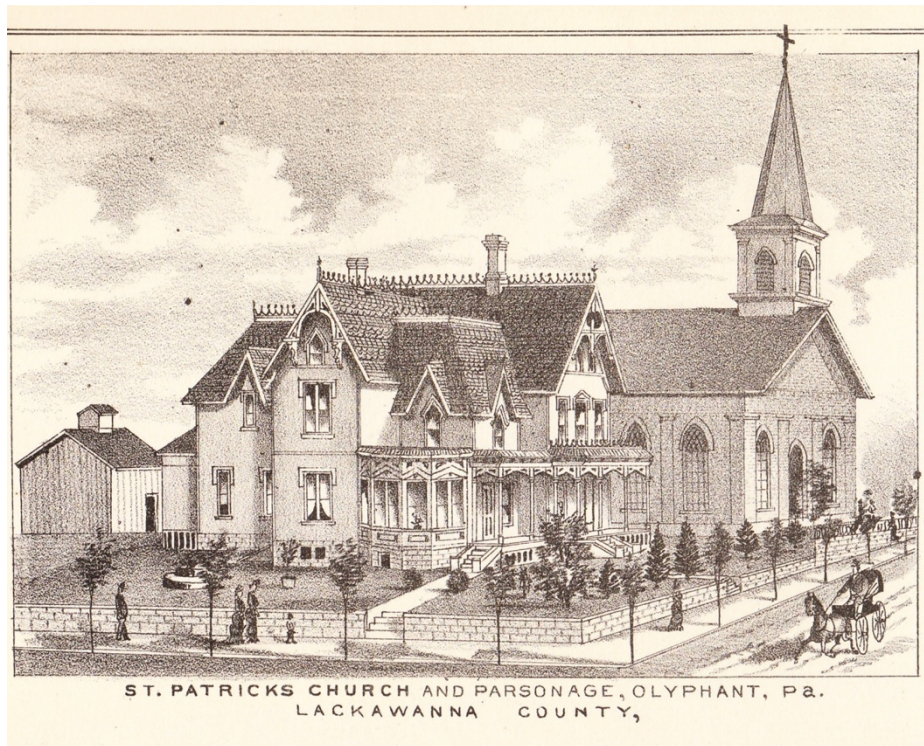
Valentine Birtley was foreman of Shaft No. 2 at Olyphant:

Valentine Birtley family emigrated to America. "The Birtley family originated in England, where its members now own large iron works. Valentine . . . was born in Durham, a county in the northern part of England, and was a son of William Birtley, a miner of that shire. He (Valentine) was also interested in mining as foreman of coal mines in Durham, but removed from there to Edinburgh, Scotland, where he became a contractor in driving tunnels for railroads, having some of the largest contracts of this kind in the entire country. In 1846 he went back to England, but four years later, accompanied by his family, took passage on the sailer 'American Union,' which after a voyage of six weeks anchored in the harbor of New York. / The first home of the family was in Hazleton, Pa., the next in Tamaqua, and the third in Beaver Meadows, Carbon County, where Mr. Birtley engaged as outside foreman in coal mines, and afterward he was foreman for the Delaware & Hudson Canal Company in the sinking of shaft No. 2 at Olyphant. Of this mine he continued to be foreman until his retirement. He died in 1892, at the age of over eighty-four years. / . . . During the residence of his parents in Edinburgh, the subject of this article [David P. Birtley] was born January 9, 1835. His early years were passed in that city, Glasgow and Firth, where he was a pupil in private schools and where he worked in a bookbinding establishment. . . Fifteen years old when the family came to America, he [David P. Birtley] soon became a practical miner, and was employed in Schuylkill, Carbon and Luzerne Counties. In May, 1856, he took a position as miner in the old Rockwell mine owned by John Jermyn, and afterward was inside foreman of the von Storch mine about seven years. Resigning this position, he engaged in business about one year, then became foreman at the Dunn mines for Mr. Jermyn and began the sinking of the shaft. Shortly afterward he opened a mine at Priceburg, then became foreman at the Winton mine for the Winton Coal Company, and later was superintendent of the Northwest Colliery at Carbondale for Simpson & Watkins about one year. At present he is engaged with the Delaware & Hudson Canal Company at the Marvine mine." (*Portrait and Biographical Record of Lackawanna County Pennsylvania*, pp. 479-480.)

The early years of Olyphant borough:

"The opening of Jones & Co.'s colliery drew here [Olyphant borough] families from Archbald, Carbondale, and the Wyoming valley, there having been but five or six families here. Jones & Co. opened the first store in connection with their colliery. . . / In 1877 the borough was incorporated, and the first charter election was held February 28th, 1877. . . / The population in 1870 was 2,327 and in 1880 2,097. . . MINING INTERESTS. / The first important mining operations were conducted by Edward Jones, Lewis Pughe, Louis Landmasser and others; the two former opening a drift in the spring of 1858 under the name of E. Jones & Co., and shipping in 1859 80,000 tons, their first mine being on the Levi tract. / Landmasser & Co. carried on operations on a small scale a year or so; their drift was on the William Pierce tract and afterward operated by the Delaware and Hudson Canal Company as Breaker No. 3." (1880, p. 470)

Here is an engraving showing St. Patrick's Church and Parsonage, Olyphant, Pa., Lackawanna County, that is given facing page 470 in 1880.



Edward Jones was an important figure in the development of the coal fields of Olyphant:

"EDWARD JONES. / Edward Jones, born near St. Donats, Wales, in 1814, educated at Cowbridge scientific school and coming to America in 1837, to avoid a sea-faring life for which his parents had intended him, has filled so prominent a place among the business men of the Lackawanna valley as to deserve more than a passing mention. Entering the employ of the Delaware and Hudson Canal Company, at Carbondale, as a miner, he was in a few years promoted to be a mine boss and in 1854 was placed in charge of that company's mines in Archbald, where he remained until 1858, when he became a partner in the successful firm of Eaton & Co., coal operators at that place. In the fall of that year, in company with two partners, he commenced operations which led to the successful development of the coal fields of Olyphant, which were continued until 1864 under the firm name of E. Jones & Co., and then sold to the Delaware and Hudson Canal Company. He was afterward employed by the Erie Railway Company in developing and perfecting their extensive collieries near Carbondale, and is now actively connected with coal operations as a member of the firm of Jones, Simpson & Co., successors to Eaton & Co., and also as a director of the Pierce Coal Company. In 1875, he was elected a director of the Merchants and Mechanics' Bank of Scranton. In 1877 he was nominated for Congress by the Republicans of his district, and was only defeated by nineteen votes in a

district usually Democratic by 2,500 majority. As a businessman he is prudent and sagacious. As a practical geologist he has few superiors in the mining regions. If an unblemished reputation, a life spent in successfully developing the material resources of one's country, and a well balanced mind are evidence by which it is safe to judge, the historian deems it not an exaggeration to note the subject of this sketch as a successful man." (1880, p. 470A)

Winton borough was incorporated in 1877:

"WINTON BOROUGH. / . . . Prior to 1848, Judge L. S. Watres, now of Scranton, had a saw-mill at Winton, which was then known as Mount Vernon. / The land in the borough is now owned by coal and railway companies, the Erie Railway, Pierce Mining Company, W. W. Winton and Filer & Livy being the principal owners. The borough contains two small hamlets: Jessup, in the southern part, on the site of the Jessup colliery is occupied by miners' families. A number of low saloons, a hotel opened in 1880 by W. R. Burke, and a small grocery store comprise its business interests. / Winton contains the colliery store of Filer & Livy and the office and breaker of the Pierce Coal Company and three school-houses, and had 905 inhabitants in 1880. / The borough was incorporated in 1877. . . / MINING HISTORY. / In the year 1855 Judge Jessup, Michael Meylert, H. S. Pierce, Samuel Meredith and others, under the corporate title of the Lackawanna Railroad Company, commenced building a railroad from Dunmore to Jessup and established extensive coal works and railroad shops. A shaft was sunk by Andrew Nicol, and the shipment of coal commenced in 1857. The enterprise proved a disastrous failure and the financial ruin of several of the proprietors, and caused great loss to creditors, including small tradesmen and employes of the company. The lands have since passed into the hands of the Erie Railway Company. The village built up by the excitement has become an unimportant hamlet. / The Livy breaker, erected in 1880, will employ several hundred men and boys, and bids fair to restore the lost prestige of Jessup." (1880, p. 472)

Peter Somers hurt seriously while hauling iron for the D&H:

1858: "SERIOUS ACCIDENT.—We regret to learn that Mr. Peter Somers, residing four miles below this place, was badly hurt on Wednesday of this week, on the road to Archbald, about two miles on this side of Dunmore. / He was hauling Railroad Iron, under contract with the D. & H. Canal Co., for their new road below Archbald. In coming with his load, about three tons of Iron, down a steep hill, he got off the wagon, and by a mis-step fell under the forward wheel which passed over him about the breast, inflicting serious internal injuries. His recovery is doubtful." (*The Advance*, July 24, 1858, p. 3)

Seven new coal openings in Blakely Township:

"**The Coal Business.** / Seven new openings of coal have been made in Blakely township, at a lower point than any previously mined for the Delaware and Hudson Canal Company. They commence about eight miles below our city on the east side of the Lackawanna, and extend down about two miles. The lower opening is nearly opposite the public house long known as the 'ten-mile tavern.' The Company have extended their Railroad to this point, and in a few weeks

everything will be in readiness for business. The coal at these new openings is of the very best quality—quite equal to any Anthracite ever mined in the State. In addition to these, coal is also being opened and preparations made for mining upon the Gibson property by Mr. Offerman, which will also go over the Company's Railroad. / In consequence of these openings below [Carbondale] for the supply of Coal, less will be mined here the coming season." (*Carbondale Advance*, March 26, 1859, p. 2)

Gravity Railroad to Honesdale to re-open for the season:

"The Coal Business. / The Company's railroad from this place to Honesdale is reported to be in readiness for the shipment of coal. The new extension below Archbald [to Valley Junction] is nearly ready, and the road from that place to Carbondale is also in order or nearly so. It was reported in our streets early in the week that coal would pass over from our place during the week. We have seen no coal-laden cars in motion, but have seen different notices posted in town which probably account for it. First were notices signed James Hosie and others signed Andrew Nicol printed, but not at our office, stating that they had leased of the Company certain mines and were ready to renew contracts with the miners—after two days other notices were posted, signed by the same men offering to make small contracts with miners, and stating that the lowest price paid during the season would be 37 ½ cts. per ton, and payments made in cash—also other allowances, which miners very well understand but we do not. In the mean time we have seen a written notice calling a meeting of the miners, and lastly one stating that the miners would not work under sub-contractors and only directly for the Company as heretofore. / From these notices thus posted, we have learned all we know of the matter, and from the tenor of the last, it is to be inferred that the miners do not intend to work for contractors to whom the mines are leased. / In this connection it gives us pleasure to state that a very good law has been enacted by the present Legislature for the protection of Miners and Laborers. It holds the incorporated Company for whom they work directly or indirectly to full liability for their payment. No matter how many sub contractors intervene between the Company and the Miner, the Company cannot evade or lessen their responsibility or liability to pay. The work done is held to be done for them, and they must see that it is paid for." (*Weekly Advance*, April 16, 1859, p. 2)

Catherine Nealon hurt in railroad collision:

"June 1st—Catherine Nealon, riding on the cars from Carbondale to Archbald, being upon the last car, was overtaken by another train, and in consequence of the collision one foot was severed from the leg, and she was dragged some distance, receiving many severe injuries. Amputation became necessary, and was performed by Drs. Richard and John Foote. / On the next day, John Nealon, a cousin to the former, in attempting to get upon a train of cars coming from Olyphant to Archbald, fell and was dragged some distance. His arm was so much torn and lacerated as to make amputation necessary, which was also done by the Drs. Foote. Both patients are doing well." (*Carbondale Advance*, July 2, 1859, p. 3)

Patrick Walsh hurt while attempting to get on a loaded train:

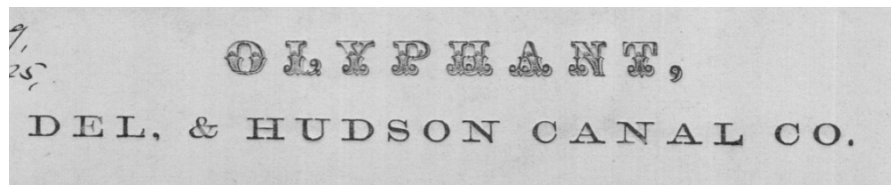
"July 23th, Patrick Walsh, in attempting to get on a loaded train [in Archbald], was thrown down, the wheel passed over the ankle [sic] of the left foot, crushing it in a dreadful manner. The foot was not amputated, as an effort is being made to preserve it. / The above case is under charge of Dr. John Foote." (*Carbondale Advance*, July 30, 1859, p. 2)

The charter incorporating Blakeley borough was granted, August 27th, 1867:

"The borough comprises Peckville, which has been built up mainly since the completion of the gravity road, and settled by railroad men and retired farmers. The population of the borough in 1880 was 875." (1880, p. 465)

Here is the 1860 photograph of Olyphant by Johnson (Scranton, PA). Original in the archives of the Wayne County Historical Society.

This view, it appears, was taken by Johnson, looking West. Was this view taken from Level 23, above Olyphant? The light track of the D. & H. Gravity Railroad, or possibly the D&H steam line (Valley Road) can be seen in this photograph—in the middle of the photograph.



Light track/ Level No. 22 or possibly the D&H steam line (Valley Road) in Olyphant. In downtown Olyphant these two rail lines were right next to each other.

This appears to be a church.



Passenger service initiated Carbondale to Olyphant:

“Railroad Communication. / We understand a party of our people were favored with a ride upon the extension of the Company’s Railroad to the new village of Olyphant. A more general party took a similar excursion of Wednesday, and on Thursday another, including all that had notice, leisure and inclination for the trip. A comfortable passenger car has been provided, well seated, and the trip we learn is made very safely and pleasantly in less than hour. Regular trips are not proposed to be made at present, but will probably within a few months the further extension of the road to Providence is completed. This will bring us by Railroad within 2 ½

miles of the Scranton Depot. It will be a great point gained, but not quite all that is desirable. / There seems to be no chance for but one opinion in regard to the Railroad as it now is, in its whole extent from Honesdale to Olyphant. It is a very superior road—wisely planned and substantially constructed. Its arrangements, and appointments for business are every way excellent, and its capacity is undoubtedly equal to 6,000 or 8,000 tons per day. / With such a road, and the large quantities of coal secured, of a quality equal to the best Anthracite in Pennsylvania, the basis seems to be laid for a large and prosperous business for at least a century.” (*Carbondale Advance*, November 12, 1859, p. 2)

Regular passenger service, Carbondale to Olyphant:

“**The Car.**—The Passenger Car to Olyphant has made regular trips throughout the week, running generally with full loads each way. It seems to be a popular institution, and bids fare to be a permanent one. The extension of the Road to Providence, and the large population setting along the line from Carbondale down, will make some cheap mode of transit to and from this place indispensable.” (*Carbondale Advance*, November 19, 1859, p. 2)

Alaric Berry now in business in Olyphant:

"ALARIC BERRY, manufacturer of and dealer in furniture, and undertaker, was born in Carbondale, and is a son of Alaric Berry, who built the first frame house in that city. He has been in business at Olyphant since 1860. . . Mr. Berry was formerly a sailor; entering on an Arctic whaling expedition October 26th, 1852, he spent some years in ocean service. His grandfather, Cyrus Berry, was a surgeon in the Revolution, and his great-grandfather was killed in the French and Indian war. Mr. Berry's father served in the war of 1812 with the rank of captain." (1880, p. 470B)

Unprecedented growth in population in the upper Lackawanna Valley:

“The growth of the upper portion of the Lackawanna Valley, indeed of the whole Valley, is probably unparalleled in the State. Much as we knew of it, it even surprised us while passing down on our trip to Wilkesbarre. Olyphant—about one year old—is a large, thriving, and still growing town—and similar villages are starting up at many other points.” (*Carbondale Advance*, May 12, 1860, p. 2)

Gideon Palmer run over by cars:

“We learn that Gideon Palmer, a son of Mr. Palmer, the host of the Olyphant Hotel, was run over by the cars at that place on Tuesday, making the amputation of one limb necessary, and endangering his life. His age is about 19 years.” (*Carbondale Advance*, August 18, 1860, p. 3)

Thomas Law was outside foreman at the White Oak colliery:

"THOMAS LAW, mine foreman, was born March 20th, 1847, in Scotland, and came to this country when a child, his parents settling in Dunmore, Pa. His first work in connection with mining was acting as weighmaster for the Pennsylvania Coal Company at Dunmore. Coming to Archbald in 1860 he served as weighmaster at the White Oak colliery until 1870, when he was promoted to his present position, that of outside foreman. Mr. Law married (August 17th, 1876) Frances, daughter of A. V. Gerbig, of Archbald, and has two children. He has served as president of the borough council, and has been its secretary since 1877. (1880, p. 464C)

James McGreal was D&H weighmaster at Jermyn:

"JAMES MCGREAL, burgess of Archbald since 1877, was born in county Mayo, Ireland, and came to Carbondale in 1857, residing there two years, since which time he has been a resident of Archbald. He was for seven years connected with the machinery department of the gravity road, and is now weighmaster at Jermyn. August 11th, 1861, he married Mary Devine, who died November 25th, 1873, aged thirty-eight years. Mr. McGreal was a member of the 8th Pa. volunteers in the late civil war." (1880, p. 464C)

Thomas Barrett run over by cars and killed at Archbald:

"Lamentable Accident.—On Tuesday of this week, Thomas Barrett, a young man residing at Archbald, was run over by two loaded coal cars about one mile below that place, and we are informed, died almost instantly. He was an industrious young man, aged about 19 years." (*Carbondale Advance*, March 2, 1861, p. 2)

Lincoln's Inaugural Address:

Immediately above the accident report cited here in the *Carbondale Advance* is the following notice:

"The Inaugural Address. / The Inauguration will take place on Monday next, and the Inaugural Address then to be delivered will be looked for with unequalled interest. So much in the present crisis depends upon the position and policy adopted by Mr. Lincoln, that the great question of weal or woe to the country hangs very much on what he shall pronounce on Monday next. We hope he may prove bold as a lion, but gentle withal as a cooing dove." (*Carbondale Advance*, March 2, 1861, p. 2)

The varied railroad and mining career of Bicknell Atherton:

Bicknell Bennett Atherton (born May 30, 1842), following three years of service in the Civil War, during which he participated in 18 battles, was mustered out of service at Harrisburg, PA on May 28, 1865:

About his life from that point, we read the following in *Portrait and Biographical Record of Lackawanna County, Pennsylvania*, pp. 591-92: "On his return to civic affairs Mr. Atherton spent four months in Montrose and then removed to Olyphant, where he was employed as weighmaster for the Delaware & Hudson Canal Company. Shortly afterward he was promoted to the position of general coal inspector of the south division of the Delaware & Hudson, with headquarters in Wilkesbarre. In 1869 he was made superintendent of the Rocket [sic, should read "Racket"] Brook colliery, on the mountain above Carbondale, where he remained one year. Next he was sent to Wilkesbarre and given charge of the Mill Creek colliery under the Union Coal Company, filling the position for nine years. Two years were then spent on the old homestead near Montrose, after which he came to Scranton as superintendent of the Leggett's Creek mine of the Delaware & Hudson Canal Company. Later he held a similar position at the Marvine shaft, and then for two years served as assistant paymaster in the Delaware & Hudson office, resigning in July 1892, to accept the position of superintendent of the Manville mine [which he still held in 1897]."

M. B. Hutchinson hurt in accident at Archbald:

"ACCIDENT.--Mr. M. B. Hutchinson, of the first ward, Coal Inspector of the Del. & Hudson Co., in jumping on the coal cars at Archbald yesterday, fell between the cars, and two of them ran over his leg, above the ankle, crushing it badly. It is thought that amputation will be necessary.--*Scranton Register*." (*Carbondale Advance*, Saturday, April 6, 1867, p. 2)

Jesse Barker hurt in accident at Archbald:

"**Serious Accident.** / Jesse Baker, one of the runners upon the Railroad, residing here, was seriously hurt upon the Railroad near Archbald, during the storm on Monday. He was as we learn engaged in connecting a train to the rope at the foot of the Plane, when another train coming up, the cars were pushed suddenly forward, knocking him down, and rolling him over several times. The injuries are considered quite serious, but we believe not dangerous." (*Carbondale Advance*, Saturday March 7, 1868, p. 3)

Major Buerkley hurt in accident at Archbald:

"**Accident.** / Maj. Buerkley, of this city, met with a severe accident on Wednesday evening. In attempting to jump on the coal cars at Archbald, he slipped and fell under them, and was dragged some distance, badly crushing one of his feet. He was brought home on the cars, and is being attended by Dr. Woodward." (*Carbondale Advance*, Saturday, Nov. 14, 1868, p. 3)

Will John Jermyn move from Gibsonburg:

"A correspondent from Gibsonburg says: 'The chief topic of conversation in our thriving Borough is the recent purchase of the entire Gibson Coal Lands by the Del. & Hud. C. Co., and the fear that it will cause the removal from us of the great benefactor of our place, John Jermyn, esq. The people here feel that he has been the friend of the workingman and of the place, and that the great improvement has been the fruit of his wise plans and efforts.'" (*Carbondale Advance*, March 9, 1872, p. 3)

John Copeland in severe accident at Olyphant:

1872: "**Serious Accident.** / John Copeland, of this city [Carbondale], brakeman on Conductor Daley's Del. & Hud. Passenger Trains met with a severe accident at Olyphant, nearly two weeks since. Finding a crippled coal train on the track, John took hold in earnest to remove it. By a sudden and unexpected movement of the cars his arm below the elbow was caught between the bumpers and badly crushed. Medical aid was immediately obtained, and Dr. Leet of Scranton, then at the dying bed of Esquire Russell of Fell township* [emphasis added], summoned to meet him here on the return of the train. Upon his arrival he was conveyed in Supt. Manville's carriage with the Doctor to his father's house, and every possible attention paid. He is doing remarkably well, is able to walk out, and it is hoped that no bones are fractured, and the sloughing of the flesh will not be as extensive as was feared." (*Carbondale Advance*, June 8, 1872, p. 3)

*Esquire Russell was the paternal grandfather of the author's mother, Helen Loomis (Russell) Powell.

George Talbot Olyphant

Olyphant was named after George Talbot Olyphant, who was chosen President of the D&H, pro tem, in April, 1855; in 1858 he was elected the permanent President of the D&H and continued in that capacity until April, 1869. He was succeeded as President of the D&H by Thomas Dickson.

"**Death of Mr. Olyphant.** / Geo. Talbot Olyphant, ex-president of the Del. & Hud. C. Co. and for twenty years a very influential director of the Company, died in New York on Thursday of last week [April 24], aged 54 years. / He gave the name to the thriving village of Olyphant in this county, and was the immediate predecessor of Mr. Dickson in the presidency of the company, of whom he was ever a very warm friend." (*Carbondale Advance*, May 3, 1873, p. 3)

The obituary of George Talbot Olyphant from two Carbondale newspapers:

"George Talbot Olyphant. / George Talbot Olyphant, who died in New York on Thursday, has for many years held a prominent position in the mercantile community of New York City. Widely known in all business circles, and intimately connected with many public institutions and charitable projects, his loss will be mourned by a large circle of associates and acquaintances. Mr. Olyphant was born in New York City, June 28, 1818, and nearly his whole life was spent in the city of his birth. On account of feeble health he was taken from school at an early age, and never received a collegiate education, though he devoted much attention to classical studies. After a short business experience in the establishment of his father, in New York, he removed to Mount Morris, in the Genesee Valley, and was there engaged in agricultural pursuits for about ten years. It was in this section of the State that he acquired a considerable reputation in political life, and in the campaign of 1844, Henry Clay had few more ardent advocates. In 1849, Mr. Olyphant sailed for China for the purpose of recruiting his health, returning in the same year. Again in the following year he repeated the trip, and was returning to America when his father, who accompanied him, died in Egypt. / In 1850 he united in forming the firm known as Olyphant's Sons, engaged in a very extensive China trade. In 1858, he retired from active mercantile life. He was elected a member of the Board of Managers of the Delaware and Hudson Canal Company in March, 1852, and remained in that position till April, 1855. In that month he was chosen President of the Company, pro tem, and in 1858 he was elected the permanent President of the Company. He continued acting in that capacity till April, 1869. / Among the prominent institutions with which Mr. Olyphant was connected may be mentioned the New York City Hospital. He became one of the Governors in 1853, and ever afterwards took an active and zealous interest in the management of the affairs. He was constant in his efforts to improve the condition of affairs at Bloomingdale Asylum, and made almost weekly inspections of that institution. At the recent reorganization of the Erie Railway, Mr. Olyphant was made one of the directors of the Company.—His benevolent disposition and sterling integrity were well known to all his business acquaintances." (*Carbondale Advance*, May 3, 1873, p. 3, this obituary was also published in the May 3, 1873 issue of the *Carbondale Leader* on page 2)

Man run over by passenger car while chasing his hat:

"Last Tuesday as a man was about to get aboard the passenger train at Peckville his hat blew off, and in attempting to get it he fell and the wheels of a car ran over one of his legs below the knee. Amputation was necessary." (*Carbondale Leader*, March 21, 1874, p. 3)

A. W. Daley opens a livery stable at the Exchange Hotel barn:

A. W. Daley, conductor: "Mr. A. W. Daley, late the popular conductor on the D. & H. Passenger Train, has opened a Livery Stable at the Exchange Hotel Barn. He is assisted by Mr. Jerome B. Townsend. Mr. Daley is in the habit of attending faithfully to any business he undertakes." (*Carbondale Advance*, August 31, 1878, p. 3)

Obstructions placed on tracks at Valley Junction:

“A Diabolical Attempt. / The last passenger train North from Scranton to this city on Monday last, narrowly escaped being wrecked near Olyphant. / Some fiend or fiends in human shape had fastened the switch at the Valley Junction, about a half mile below Olyphant [emphasis added] and placed obstructions upon the track at the intersection of the gravity and locomotive tracks, [emphasis added] consisting of broken rails, frogs and chains doubtless expecting to throw the passenger train off the track at that point. But fortunately for the passengers upon the passenger train, it was late, so much so that a coal train was ordered to make the junction a head of it, and thus the coal train encountered the obstructions in stead of the passenger train. / The engineer upon the coal train, Mr. Ostrander, it being a bright moonlight evening, saw the obstructions before the engine struck them, and quickly reversed it, and with his fireman, leaped from the engine and saved their lives. The engine and train of cars, eighteen in number were hurled from the track and thrown into the culm piles down the embankment. Mr. Benscoter the engineer of the passenger train, a very cautious and skillful man, was notified at Green Ridge, by the hands on a coal train that had just come down, to be careful as he approached the junction, as they had notised [sic] a frog there, that had no business there. His train was uninjured, and after a delay of about three hours, to clear obstructions and repair damages on the track, reached Carbondale safely with its precious load of passengers, whose deaths had been so fiendishly planned. / Few roads any where have been run so carefully and with so complete an exemption from accident as our road between Carbondale and Scranton. No passenger has ever been injured. The whole line is patrolled by careful men.” (*Carbondale Advance*, January 31, 1880, p. 3)

Utley Thorp of Peckville was a Gravity Railroad conductor:

"PECKVILLE. / Utley Thorp, conductor on the gravity, has been off on account of sickness the last two weeks." (*Carbondale Leader*, August 19, 1881, p. 4)

New iron bridge at Valley Junction:

“The old wooden bridge at Valley Junction has been replaced by an iron one made of T rail. The new bridge was made in Mr. Wyllie’s blacksmith shop here, and is a model in its way. It was placed in position by the bridge carpenters last week.” (*Carbondale Leader*, April 20, 1883, p. 3)

The laurels will soon be in blossom at Archbald:

“The laurels on the hillsides are beginning to bloom and in a few days the barrens in this vicinity [Archbald] will present the most magnificent sight imaginable.” (*Carbondale Leader*, June 15, 1883, p. 3)

New town of Simpson:

“The New Town of Simpson. / The *Republican* says: The place known as the ‘Ridge,’ lying a short distance southeast of Archbald, has been named ‘Simpson,’ after George Simpson, the early pioneer coal operator of Archbald. Certain parties owning land here have had the same surveyed into lots, which they offer for sale. Streets and avenues have been laid out, and the new

town of Simpson bids fair to complete [sic] with other towns in the valley. The road leading from Blakely through the town is now called Ridge avenue. After it is repaired it will make one of the finest drives in the county. The town of Simpson forms an important part of the anthracite coal fields, there being in this place about 2,000 acres of coal land owned by Eli K. Price, the Pancoast estate, the Erie Company, the New York, Susquehanna and Western Railroad Company, Edward Jones, George Simpson, James J. Williams, Charles Hagan, the Howell estate, C. B. Hackley, the Hillside Coal and Iron Company, and others. These lands are all underlaid with the Archbald vein, which is of good quality, and from six to ten feet in thickness. About ten or fifteen years ago an attempt was made by the Erie Company to purchase all the coal lands in this place, but the scheme failed. John Jermyn; and his son Joseph, are sinking a shaft and erecting a breaker on the track of land formerly known as the Thomas A. Jones tract, but now as the Swallow and Thompson. They control about 600 acres of land located here and expect to be ready to mine and ship coal by the first day of next January. Jones & Simpson have sunk a shaft on the Hackley land and built two and a quarter miles of railroad to their breaker at Archbald, where they will take their coal to be prepared for market. They will soon be ready to carry coal over their new road. It is understood that Mr. Simpson intends soon to give a banquet at the Wyoming House in honor of the new town, when all the prominent men of this vicinity will be invited. Set them up, Mr. Simpson.” (*Carbondale Advance*, June 23, 1883, p. 3)

Death of George Simpson of Archbald:

“Death of George Simpson. / George Simpson died of congestion or paralysis of the brain, at his late residence on Centre street, Archbald, on Saturday last at 1:15 p.m., after an illness of about ten days. He was taken sick while attending a meeting of the managers of the Pierce Coal Company, at their offices in Winton, of which company he was the President. He was attended by the best of medical skill but the insidious disease baffled all efforts to save him. He passed peacefully and quietly away with his sorrowing relatives and friends by his bedside. / Mr. Simpson was born near Dumfries, Scotland, on the 12th day of November, 1823, and consequently his age was 60 years, 8 months and 27 days. He came to this country with his father, the late John Simpson in 1834, and located in Carbondale. For a number of years at this place he was employed by the Delaware and Hudson Canal Company as engineer, running a stationary engine. He removed to Archbald in 1847, and there followed the same employment for the same company until the year 1857, when the coal firm of Eaton & Company was organized which was composed of Alver Eaton, George Simpson and Edward Jones. Alver Eaton died in 1874, when the firm changed to Jones, Simpson and Company. The surviving partners purchased the Eaton interest, who together with James J. Williams constituted the new firm, of which Mr. Simpson was a member when he died. Mr. Simpson was a successful business man. Always honest, upright and faithful in his dealings with his fellow man, he inspired the confidence and respect of all who knew him. His sterling integrity gave him the title among his friends of ‘Honest George Simpson.’ And what nobler title can there be? He had a kind, sympathetic heart and his many deeds of kindness will not be forgotten although his manly form will be seen among us no more. He was charitable in his views, as those who knew him best will readily attest. George Simpson was a noble man. He was such a man as we very seldom meet in the

walks of life. He left surviving him three brothers, Andrew and William of Carbondale, Robert of Archbald (who is connected with the firm)--a sister, Mrs. Jas. J. Williams, and a niece, Miss Jennie Eaton, and innumerable friends to mourn his death. / The funeral took place from the family residence Tuesday afternoon at one o'clock, and was attended by many people from up and down the valley. Mr. Simpson was a man widely known and respected, and his many qualities of hand and heart were witnessed in the representative business men who gathered to pay their respects as his remains were committed to their last resting place. / The services, which were conducted by the Rev. Joseph Coray, Dunmore, were impressive in their simplicity and consisted well with the unpretentious sincerity of the dead man. After a prayer and the usual form of burial services observed by the Presbyterian Church, Mr. Coray pronounced a beautiful eulogy on the successful life of the deceased, and drew therefrom some impressive lessons. The services ended with the rendition of 'Jesus, Lover of My Soul,' rendered by a quartette consisting of Mrs. Watres, Mrs. Millard and Messrs. Horace E. Hand and H. W. Kingsbury of Scranton. The remains were then taken in charge by the pall bearers, Messrs. H. S. Pierce, John Jermyn, Jere Chittenden, John B. Smith, G. L. Dickson, Alex Farnham, Charles Law and P. A. Reeves. The interment took place at Maplewood Cemetery, Carbondale, under the auspices of the Carbondale Lodge No. 249, F. & A. M., to which the deceased belonged. / The remains were followed to Maplewood Cemetery in this city by an immense concourse of friends. The Masons and Odd Fellows, to which orders deceased belonged, turned out with full ranks. There were, besides the large procession on foot, sixty carriages in the line." (*Carbondale Advance*, August 16, 1884, p. 3). Resolutions on the death of George Simpson were adopted by the Carbondale Lodge, No. 249, F. & A. M. (Committee: John Scurry, Joseph Birkett, and Wm. R. Baker), at a meeting held on Monday evening, August 11th and published in the *Carbondale Advance* and the *Carbondale Leader*.

George Simpson was headman at Old Plane No. 2 in Archbald:

"DEATH OF GEORGE SIMPSON. / Another link with binds the present with the early history of Carbondale has been removed in the person of Mr. George Simpson, who departed this life at his home in Archibald last Saturday. The deceased came to this place in 1834, the same year that Thomas Dickson did, he was about the same age and had the same land for a birthplace. The writer has a distinct recollection of the two deceased as schoolmates in the old school house which stood on the spot now occupied by the Presbyterian church. They were devoted friends all their lives, and these coincidences had a fitting termination in their contemporaneous decease. Mr. Simpson's first employment, as we recollect, was as headman, at Old No. 2 [in Archbald], where he afterwards served as engineer. In 1847, he removed to Archbald where he was employed in the same capacity for ten years. Then the firm of Eaton & Co., in the coal business, was formed, of which he was a member. On the death of Mr. Easton in 1874, Mr. James J. Williams became a member of the firm, the name of which was changed to Jones, Simpson, & Co." (clipping in Gritman scrapbook dated Carbondale, August 15, 1884).

Dr. Travers hurt while riding on Gravity cars near Archbald:

“Dr. Travers, of Olyphant, while riding on the D. & H. Gravity cars near Archbald on Saturday, had his hips seriously squeezed between the cars, and had to be conveyed to his house and medical aid summoned.” (*The Journal*, April 15, 1886, p. 3)

E. C. Harnden narrowly escapes death at Olyphant:

“NARROWLY ESCAPED DEATH. E. C. Harnden Almost Beneath the Wheels of a Delaware and Hudson Passenger Train. E. C. Harnden manager of the Weston Mill company of this city narrowly escaped a horrible death in attempting to board a moving Delaware & Hudson passenger train at Olyphant Saturday afternoon. The train was just getting under way at the station and Mr. Harnden grasped the hand rod on the rear end of the second car to step on when he slipped on the icy ground. He fell toward the moving train and retaining his hold on the hand rail was drawn between the cars. In this position he was dragged over the frozen ground for about sixty feet when the train was stopped. / A brakeman who witnessed the accident had jumped from the train to assist Mr. Harnden but the icy condition of the ground made it impossible for him to gain a footing so he could overtake the train and be of any assistance. The train was stopped by some one pulling the signal cord. / All who witnessed the thrilling sight say that Mr. Harnden’s escape from instant death was miraculous. Many standing at the station feared to look in the direction of the departing train, expecting to see his mangled remains lying on the track. / Mr. Harnden escaped with but a few bruises and a little nervous indisposition for a few hours but is able to be at work today. (*Carbondale Leader*, February 6, 1899, p. 5)

Thomas W. Loftus killed in peculiar accident at a railroad crossing:

“STRUCK BY A LOCOMOTIVE. / Sad Death of a Former Resident. . . / Thomas W. Loftus, of Olyphant, at one time a resident and one of the pioneer school teachers of this city, died at his home in Olyphant about five o’clock this morning from the effects of injuries received in a peculiar accident last night. Mr. Loftus had been to Scranton early in the evening with a friend and together they started for home on a street car. The car was so crowded that they were forced to stand on the rear platform. At a railroad crossing the car ran over ahead of an approaching locomotive and fearing that they would be killed if the car was struck Mr. Loftus and his companion jumped to the ground. / Mr. Loftus’ companion jumped first and escaped injury but he was not so fortunate for he was struck by the engine and carried about forty feet. The car barely escaped. The injured man was taken to his home in Olyphant and examination found bruises on his chest with internal complications and one leg badly crushed. / Of the deceased no word of harm can be spoken. He was a man of kindly retiring disposition, well liked by everyone with whom he was associated. He had many friends in this city and many of our business men are his former pupils. He was unmarried and about fifty years of age, survived by two sisters and three brothers. Mesdames Gilgallon and Cummings of Olyphant; Michael and Daniel Loftus of this city and James Loftus of Olyphant. Funeral arrangements tomorrow. . . (*Carbondale Leader*, September 19, 1899, p. 5)

Brakeman dragged beneath cars at Valley Junction:

“BADLY INJURED. Mr. J. Oliver, a D. & H Brakeman Dragged Beneath the Cars at Pleasant Valley Junction. Mr. J. Oliver of No. 20 Gilbert street a brakeman employed on conductor Joseph Nicholson’s D. & H. through freight received injuries this morning at Valley junction near Dickson that may prove fatal. / The injured man was brought to this city on the 12:45 o’clock train and from information gained from time to time since then he was no improved up to the hour of going to press. / His injuries are confined to the chest and were sustained by being dragged under the cars, although the wheels did not pass over him. / A physician who had been notified by telegraph boarded the train at Olyphant and accompanied the man to his home where Dr. D. L. Bailey was called in consultation. It is to be hoped that Mr. Oliver’s injuries will not prove as serious as reported. (*Carbondale Leader*, October 30, 1899, p. 5)

Gravity bridge that spanned Gravity tracks at the foot of Plane E coming down:

"OLD GRAVITY BRIDGE IS BEING TORN DOWN / Erie Prepares to Cut Down Grade Leading to Plane E. / Construction gangs of the Erie Railroad began yesterday to dismantle the old red iron bridge in Peckville that formerly spanned the Gravity tracks at the foot of Plane E. The bridge has been used by the Lackawanna and the Erie for the past twenty-five years. / After the bridge has been removed the Erie proposes to cut down the grade at that point. A cut of nine feet will be made, affecting Cemetery and North Main street grade crossings, lessening the grade at those points." (*Scranton Republican*, July 16, 1910)

5939

Racket Brook to Olyphant

The run between Racket Brook and Olyphant was a very important component of the Gravity system from the time of the extension of the Gravity Railroad to Valley Junction to the closing of the line in 1899.

Here are two excellent accounts of this run, the one from the biographical sketch of James A. Farrell in the July 1, 1932 issue (pp. 195-96, 203) of *The Delaware and Hudson Railroad Corporation Bulletin*, and the other from the biographical sketch of Willard Newton that is presented in the January 1, 1936 issue of *The Delaware and Hudson Railroad Bulletin*:

The Racket Brook/Olyphant run from the James A. Farrell biographical portrait:

“There were then [1869] eight gravity crews running trains between Racket Brook (on the mountain east of Carbondale) to Olyphant, and each crew made three round trips daily. In the morning the car distributor at Olyphant would ascertain how many carloads of coal would move to Honesdale that day, the figure varying between 1400 and 1500. The number of cars in each train was then determined by dividing the total number of cars by twenty-four, the number of round trips times [by] the number of crews, or an average of between 50 and 60 cars per train. / Mr. Farrell became a trainman on the gravity in 1875 on the Racket Brook-Olyphant section. From Racket Brook the cars ran down a six-mile ‘level’ to Archbald; they were pulled up a 1000 foot plane and coasted into Peckville; hoisted up a plane 400 feet long and from there ‘free-wheeled’ into Olyphant. One member of the crew rode the front end of the train and set the hand brakes on one-third of the cars; another tended the middle section; and the third, the cars toward the rear.” (Biographical sketch of James A. Farrell—“The Engineer Hired a Horse”—in the July 1, 1932 issue (pp. 195-96, 203) of *The Delaware and Hudson Railroad Corporation Bulletin*)

The Racket Brook/Olyphant run from the Willard Newton biographical sketch:

In the biographical portrait of Willard Newton that is presented in the January 1, 1936 issue of *The Delaware and Hudson Railroad Bulletin* (pp. 3-4), we read the following on the operation of Gravity trains between Olyphant and Carbondale: “After completing the course in the grade school at Peckville, Mr. Newton applied for a position on the Gravity and, at the age of 16, was hired by ‘Bill’ McMullin, to work for \$1.55 a day. He was immediately made a runner, operating gravity trains between Olyphant and Carbondale. Reporting for work at Olyphant in the morning, he took part of a train of empties south to the foot of ‘G’ plane, where he picked up a string of loads for the run to Carbondale. The entire train was divided into three sections: he, as headman, took the first 20 cars, the middleman rode the next cut of 20, while the ‘boss runner’ operated the remainder. / When his string of loads had been assembled at the foot of ‘G,’ he rode the first cut up the plane, waiting there for the balance. When the entire string had been hoisted up the plane, he rode them across the level to the foot of ‘E’ at Peckville. The operation was repeated at ‘D’ plane, Archbald, and ‘B’ above Archbald. There he waited for the middleman and ‘boss’ to overtake him, whereupon all the cars were coupled together for the balance of the run to Carbondale. / On the return trip the cars ran by gravity from Carbondale to the foot of ‘C’ at Archbald and from the top of that plane they ‘free-wheeled’ back to the foot of ‘G.’ Three round trips constituted a day’s work. . .”

Plane No. 28, 1859-1899

Davies Plane, also known as “Davies’s Head”

Two planes: South Plane and North Plane

--Length of South Plane 28: 1,008 feet, (rise 71.75 feet)

--Level 28: 2,137 feet long, (fall 18.65 feet), also known as "the Highworks" (installed at the time of the 1859 revision and removed in 1902; these highworks spanned Dundaff Street and the foot of Salem Avenue)

--Length of North Plane 28: 500 feet

--Called by *Mathews*, p. 246, Pocket Plane: 646 feet long, (rise 92.30 feet)

This "Pocket Plane" was probably the North Plane of No 28.

Plane No. 28 (1859—1899): no more water wheels

North Plane and South Plane: stationary steam engine; **highworks in place**

South Plane: loaded cars from down the valley rolled by gravity on the highworks (Level 28 from South Plane) to foot of No. 1. “On the south plane is operated the greater part of the coal brought from the different mines between Wilkes-Barre and Carbondale; also the passenger and freight trains which are run between Carbondale and Honesdale.” McComb

North Plane: “On the north plane is operated most all of the coal that is brought by locomotive power from the Erie Breaker, situated about two miles below here; also part of the coal prepared at the Lackawanna Breaker, the largest coal breaker in the world, which is situated about a half-mile above here. Besides the coal, a large number of empty cars that accumulate at the transfer pockets are taken back to the gravity road by means of the north plane.” McComb

Shortest Plane on Gravity Railroad is North Plane on No. 28:

In an undated newspaper article titled “The Celebrated Gravity Road” (probably published in the *Carbondale Leader* in the 1890s) in the archives of the Historical Society, the author reports the following fact about Plane 28: “. . . the shortest [plane on the Gravity Railroad] is on the north side of No. 28. The speed on a plane is 22 miles an hour.”/ North Plane 500 feet long / John McComb [*Carbondale Advance*, 02-12-1881] gives the length of the “north” plane as “nearly five hundred feet long.”

1835: The "New Mine" at the Foot of the Davis Back Plane

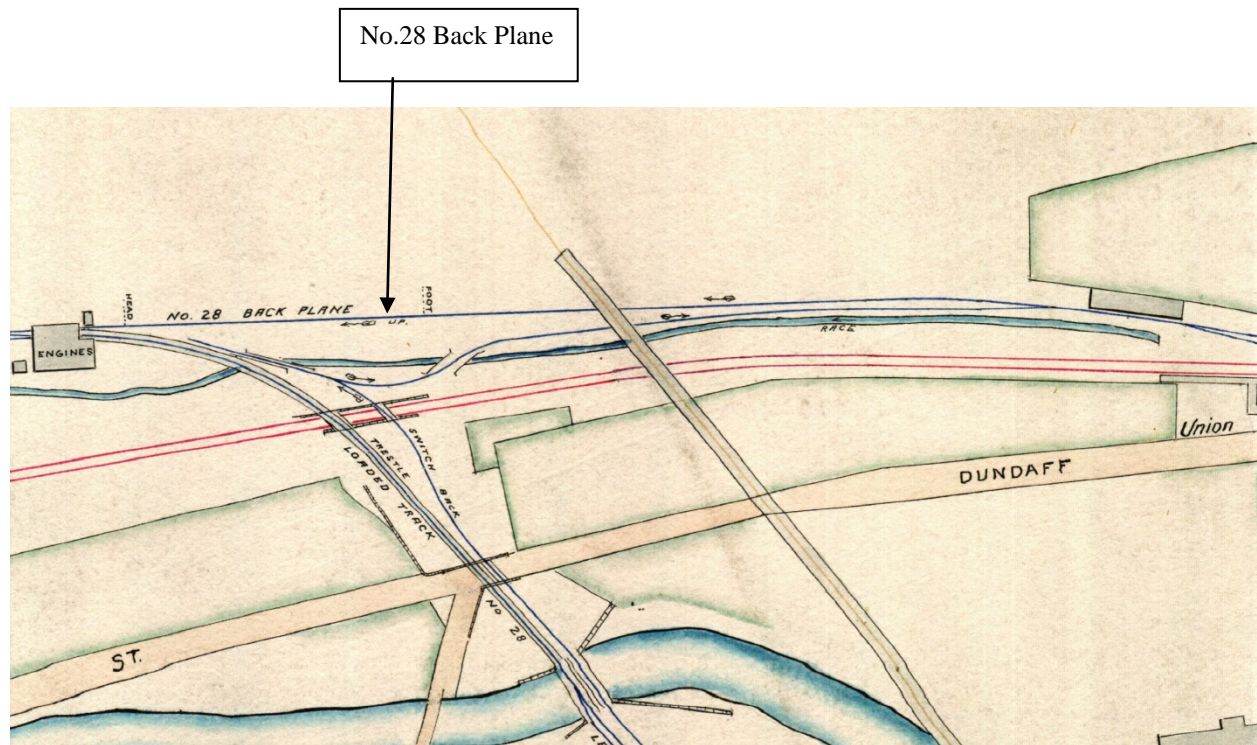
In the twenty-first anniversary edition of *The Carbondale Leader*, May 18, 1893, on the question of "coal operations," we read: "The 'New mine' at the foot of the Davis back plane was opened in 1835 and worked until 1856."

1829: First coal mined in Carbondale near Davies Plane; more on that first mine and other early mines in the Carbondale area:

"The first coal was mined at the foot of Davies' Plane, [now known as No. 28] from the bed of the river, by diverting the river from its channel and running a level into the hill. The coal was run out on a wheelbarrow. This was called Inghram's level. In 1829, a tunnel was driven on the opposite side of the river at old No. 1 drift. This drift was worked till 1857. No. 2 drift, west of No. 1, was opened in 1830. January 12, 1846, the roof of this mine fell in over a space of half a mile long and forty rods wide. About sixty men were shut in, of whom all but fourteen succeeded in effecting their escape. The bodies of five were never recovered. No. 3 on the 'High road' drift, was opened about the same time. This was a slope and was pumped by water power up to 1838. / The 'New mine,' at the foot of Davis's back plane, was opened in 1835 and worked until 1856. **No. 1 shaft, which was the first shaft put down here, was sunk in 1843.** This was used for pumping water. The first rock slope in the Lackawanna valley was started at high water mark on the bank of the river, and descended to the coal at a pitch of nine and one-half degrees. Six hundred tons per day are now [1880] hauled up this slope, besides pumping the water from the mine by water power. The top vein is worked out here and the bottom is being worked. The two are separated by eighteen inches of bony coal. / **Fall Brook levels 1, 2 and 3 were opened in 1846 and abandoned about 1857.** The coal from these levels is worked from the 'White Bridge' tunnel and hoisted at No. 1 plane. The 'White Bridge' was begun in 1865. No. 2 shaft, near the line of Fell Township, on Coal creek, was started in 1853 and abandoned in 1861. No. 3 or 'Lookout' shaft was started at the same time in the third ward of the city. The engine house of this shaft burned May 20th, 1874, but was rebuilt the same year. Here are two Cornish bull pumps, lifting 2,700 gallons per minute a height of 74 feet. Steam was first used at shafts 2 and 3. / The Powdery tunnel, which was started in 1855, has been full of water more than five years, having filled during a miners' strike. **The Powdery mine, in the south district of Carbondale township, was begun in 1845. It has three drifts, but never did much.** Coal Brook rock tunnel, 800 feet long, was started at the mouth of No. 2 shaft, and is now working. Lackawanna tunnel was started in 1864 near Coal Brook breaker, and driven north to the bottom vein. Forrest tunnel, fifty feet higher, driven to the top vein, was begun in 1867 and abandoned in 1871. Valley tunnel, east of the others and working the bottom vein, was driven in 1868, and is now working. 'Breaker' slope was driven in 1869, to the bottom vein, and has been idle since 1876. Mill Ridge slope, to the top vein, driven the same year, is now being worked, as is also the 'Midland,' driven in 1873. The company has no breaker in Carbondale, and separates the coal into lump, steamer and 'breaker' coal. The last is taken to a breaker at Rackett [sic] brook, where it is prepared. This breaker was built in 1856, and rebuilt in 1868. / Coal Brook breaker, just above the depots of the railroad in the city, was erected in 1867, and is the largest in the United States. It has a capacity of 1,400 tons per day. It has no rolls, and the coal is separated by screens, the finer coal going to the Rackett [sic] Brook breaker. / About 1,200 men and boys are employed by the

company at its mines here. A. H. Vandling is superintendent of coal; A. G. Nicol, general mine boss; William Bowers, outside foreman; John Campbell, mine boss at No. 1; John Hughes, mine boss at No. 3; William McMyne, mine boss at Coal Brook. About 1,600 tons per day are mined, while the mines have a capacity of 2,500 tons." (*History of Luzerne Lackawanna and Wyoming Counties, PA. With Illustrations and Biographical Sketches of Some of Their Prominent Men and Pioneers*, New York, Munsell & Co., 1880, p. 447) (Emphasis added by author)

Here is the "back plane" on No. 28, as shown in the 1895 Gravity Railroad map volume:



Map Views of Plane No. 28:

Here are two views of Plane No. 28 and Level 28 from the 1895 Gravity Railroad map volume in the collection of the Lackawanna Historical Society:

Plane No. 28: the regular plane, and the "back plane." The back plane was used for moving loaded coal cars from the breaker in the yard (also loaded cars from down the line that came north on the steam line) back into the system for shipment to Honesdale. They were pulled up the back plane and then moved across Level 28 to the foot of No. 1. By means of a switch back on the north side of Level No. 28, empty coal cars were moved down into the yard area, for loading.

All of the "back plane" and the "switch back" north of Level 28 are shown on the map detail given below.

The foot of the "back plane"
on Plane No. 28

Switch back for moving
empty cars down into
the yard, where they
were loaded for
shipment to Honesdale

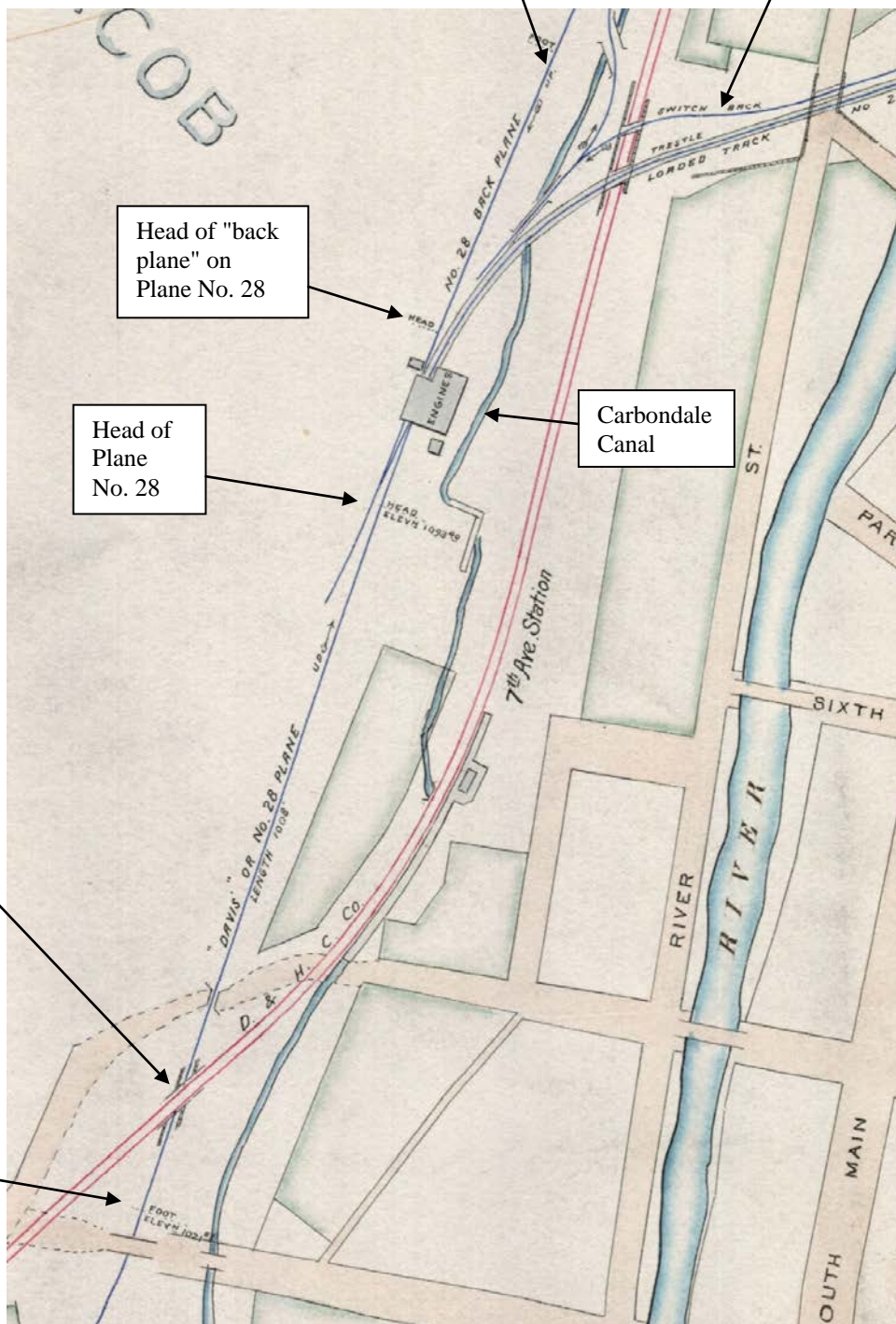
Head of "back
plane" on
Plane No. 28

Head of
Plane
No. 28

Carbondale
Canal

The D&H
steam line
tracks passed
over the
lower part of
Plane No. 28

Foot of
Plane 28,
just north
of Eighth
Avenue



Level No. 28: 1895 Gravity Railroad map volume:

Van Bergen Foundry

Union Station,
later to become
the Erie freight
house

Ontario &
Western
Railway
trestle

Racket Brook
(going under
the shops
area)

Level No. 28,
1859-1899

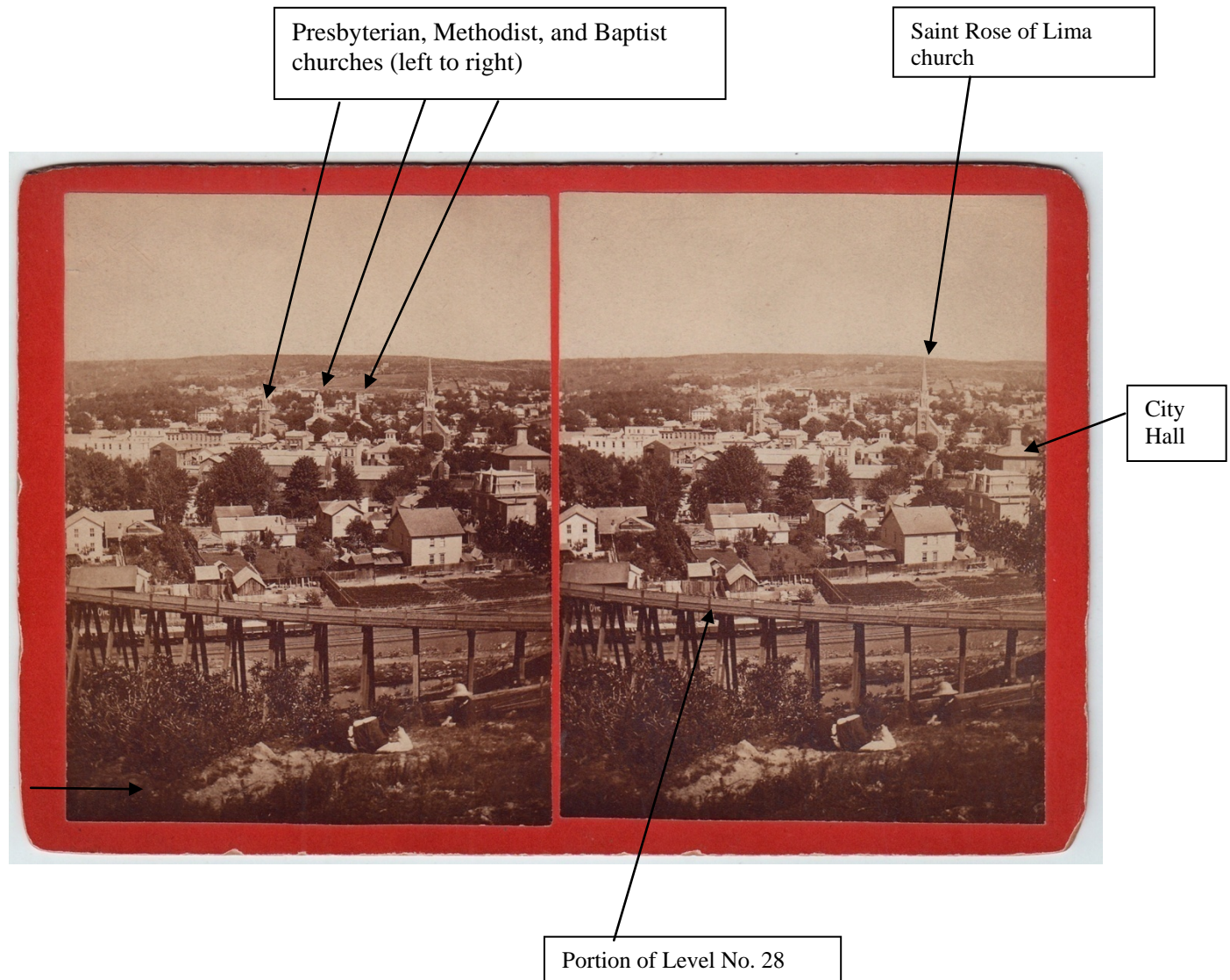
Foot of
Plane No. 1



Several stereocard views of Plane 28 and the area around the plane are available.

1142

Hensel, No. 1142: "View of Carbondale, seen from Head of No. 28 Plane." Seen here is a portion of Level 28 and of Carbondale from the head of Plane No. 28.

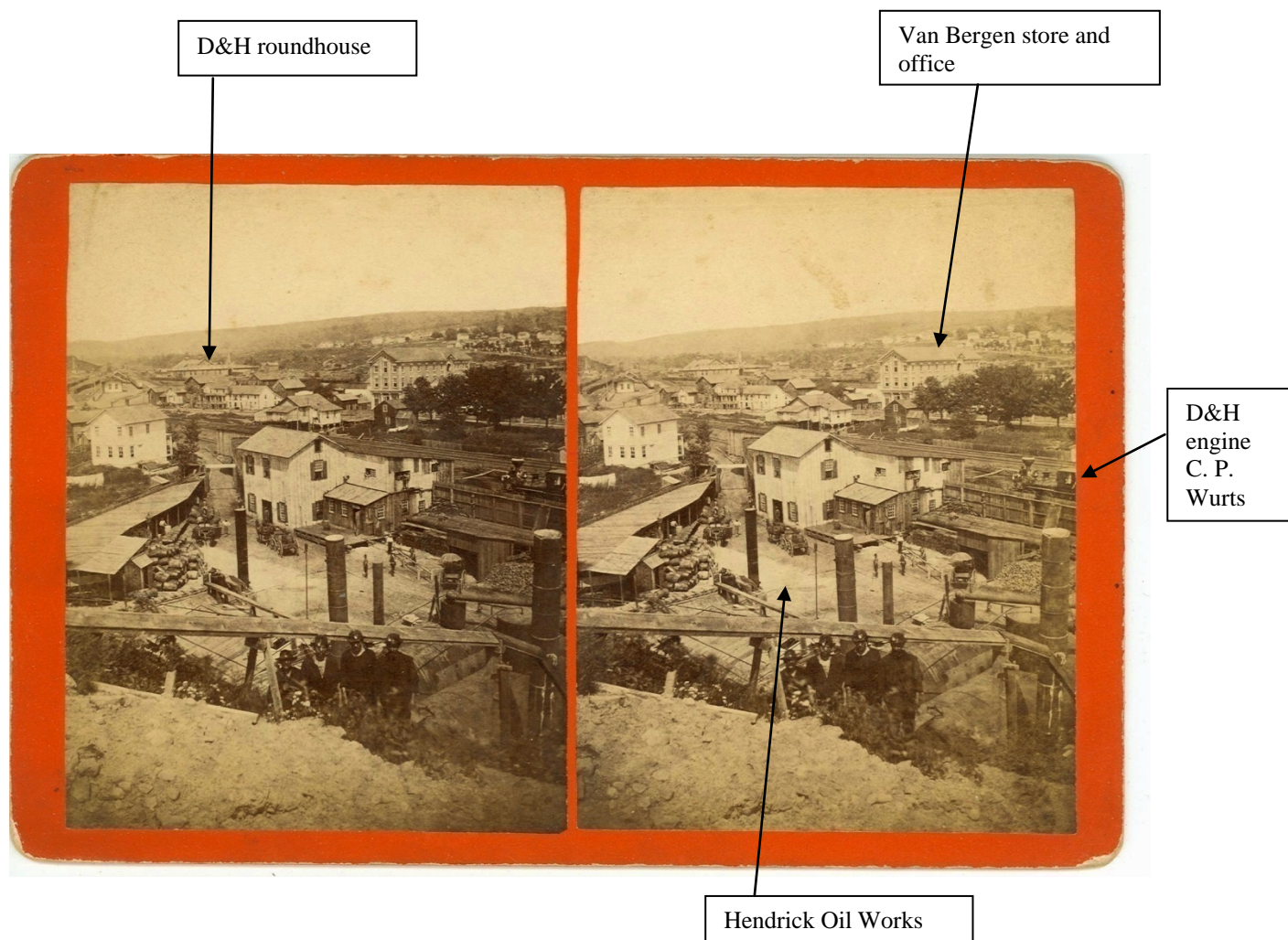


1143 and Sequel

The Hensel view shown below was shown to us by Dave Wood at the Catlin House, Scranton, on November 20, 2011. At that time, the identity of the scene represented was not known by Dave Wood. Powell, on seeing the image, positively identified the site as being Carbondale, based on the fact that the Van Bergen office building (still standing in Carbondale) is seen in the photo in the center top right of the image. Dave Wood graciously made available to Powell an electronic copy of his original stereoview of the scene.

On studying other Hensel stereocards with lists on the backs of those cards, Powell determined that the view shown below is No. 1143: "View of Van Bergen & Co.'s Foundry and Hendricks' [sic] Oil Works, from Head of No. 28 Plane." The industrial activity at the base of the embankment in the view being, therefore, the Hendrick Oil Works.

Powell then sent an electronic copy of the image to John V. Buberniak who agreed with Powell's identification of the scene and noted: "The locomotive the *C. P. Wurts* is seen at the center right; the Van Bergen office building, in the center top; the original D&H roundhouse, in the top left center; and the original D&H passenger station, in the top center left."



Also on November 20, Dave Wood showed Powell the stereo card that is shown below and, at Powell's request, sent him an electronic copy of the original image in his (Wood's) collection.

Powell studied the image and hypothesized that this is a view of the industrial activity (the Hendrick Oil Works) at the foot of the embankment below the head of Plane No. 28 in Hensel No. 1143 when seen at street level and looking back in the direction of the head of Plane No. 28.

When shown a copy of this image, John V. Buberniak agreed with Powell on the identification of the scene represented. Buberniak noted: "The cookers in the rear are where the crude was processed, and the paraffin wax and other by-products were made."

Hendrick Oil Works



These two views of the Hendrick Oil works are the only two views of that company known to exist. In Hensel No. 1143, the Hendrick Oil Works are seen, not as an end in itself, but as a component of a larger image—a view of Carbondale from the Head of Plane No. 28. The view shown immediately above is not part of any of the Hensel series of numbered stereo cards. Perhaps it was taken at the specific request of E. E. Hendrick who learned that a photographic record of the community was being produced by Hensel? E. E. Hendrick, knowledgeable business man that he was, would surely have understood that a photograph of his oil works could be useful in celebrating and promoting his oil business.

In *Hitchcock*, Volume II, p. 329, we read: "E. E. Hendricks [sic] first began the business of oil refining on the line of the Gravity road. In 1876 he moved his plant to the west side of the river, and built on a much larger scale."

In *1880* (p. 443) we read: "E. E. Hendricks [sic] first began the business of oil refining on the line of the gravity road. In 1876 he removed his refinery to its present location, on the west side of the river below the Delaware and Hudson depot, where the works were put up on a more extensive plan. They have a capacity of 1,000 barrels per day, and employ 32 men here and four men at the old place on the gravity road. All kinds of burning and lubricating oils are made here. John Herbert is the foreman."

The rise to great prosperity of Eli E. Hendrick (born in Plymouth, Wayne County, MI, in 1832) is an interesting story.

In *PABRLCP*, pp. 942-47, we read: "When seventeen years of age, having a great taste for mechanical work, Mr. Hendrick entered his brother's shop to learn the turner's trade. Later the two started a shop for the manufacture of wooden hay rakes and other farm implements. The shop was burned down in 1853, but they rebuilt it and employed a large force of men for some time. The panic of 1857 destroyed the business and it was sold to his former employer, May. Soon afterward he went to Davenport, Iowa, to take charge of a barrel factory, but the farther west he went, the harder he found the times to be. Deciding that the place to do business was where the money was most plentiful, he returned east, having procured the agency for the sale of a new invention, a governor for steam engines. He succeeded in that very well. / While engaged in this business Mr. Hendrick met a man who had originated a new kind of oil, manufactured out of one-half water and the other half oil. Being assured of its merit, he bought the receipt [recipe] for \$10 and spent the winter of 1860-61 in Michigan, experimenting in oil. He discovered the receipt was practically useless, but finding a formula that seemed to have merit, he went to Toronto, Canada, and experimented with it on the machinery of a large rolling mill. It worked to the satisfaction of the owners of the mill, who paid him \$50 for the receipt and the right to make it. On his return to Scranton he introduced it to this locality. Going to John B. Smith, superintendent of the Pennsylvania Coal Company's Gravity Railroad, he secured permission to give it a test on the cars of that road, assuring him that it would lessen his oil bills by one half. After a thorough test extending over several months, they made an arrangement with him for the use of it on the road and paid him on the start \$500. / Mr. Hendrick was led to make further experiments in the oil business and they proved very satisfactory. Through his efforts with others, the Great Northern Oil Company was organized, he getting \$33,000 in cash and \$200,000 of the stock of the company, and he went into the Venango fields to manufacture the oil. . . /

Returning to Carbondale, Mr. Hendrick traded \$100,000 of the stock to C. P. Wurts for his private residence. For this same stock he had refused \$60,000 in cash a short time before. He soon originated another patent which he named Galena oil and sold the patent and factory to Venango County parties. In 1876 he originated still another improved oil and went to Franklin and erected a factory for its manufacture. A few years later he sold that out to the Standard Oil Company. Returning to Carbondale he erected an oil refinery of eight hundred barrels crude per day. In 1879 he again sold out to the Standard Oil Company for about \$100,000, and \$10,000 per year for ten years. They made an additional contract with him whereby they paid him \$5,000 per year to go to New York and superintend the erection of oil refineries in that city. For several years he continued in that capacity. In 1879 he started a small machine shop in Carbondale, and from this nucleus has sprung the Hendrick Manufacturing Company. / . . . The building up of the Hendrick Manufacturing Company has been, outside of the Delaware & Hudson road and the coal business, the principal factor in making Carbondale the beautiful and thriving city it now is. . . / . . . Mr. Hendrick was elected Mayor of Carbondale in 1893."

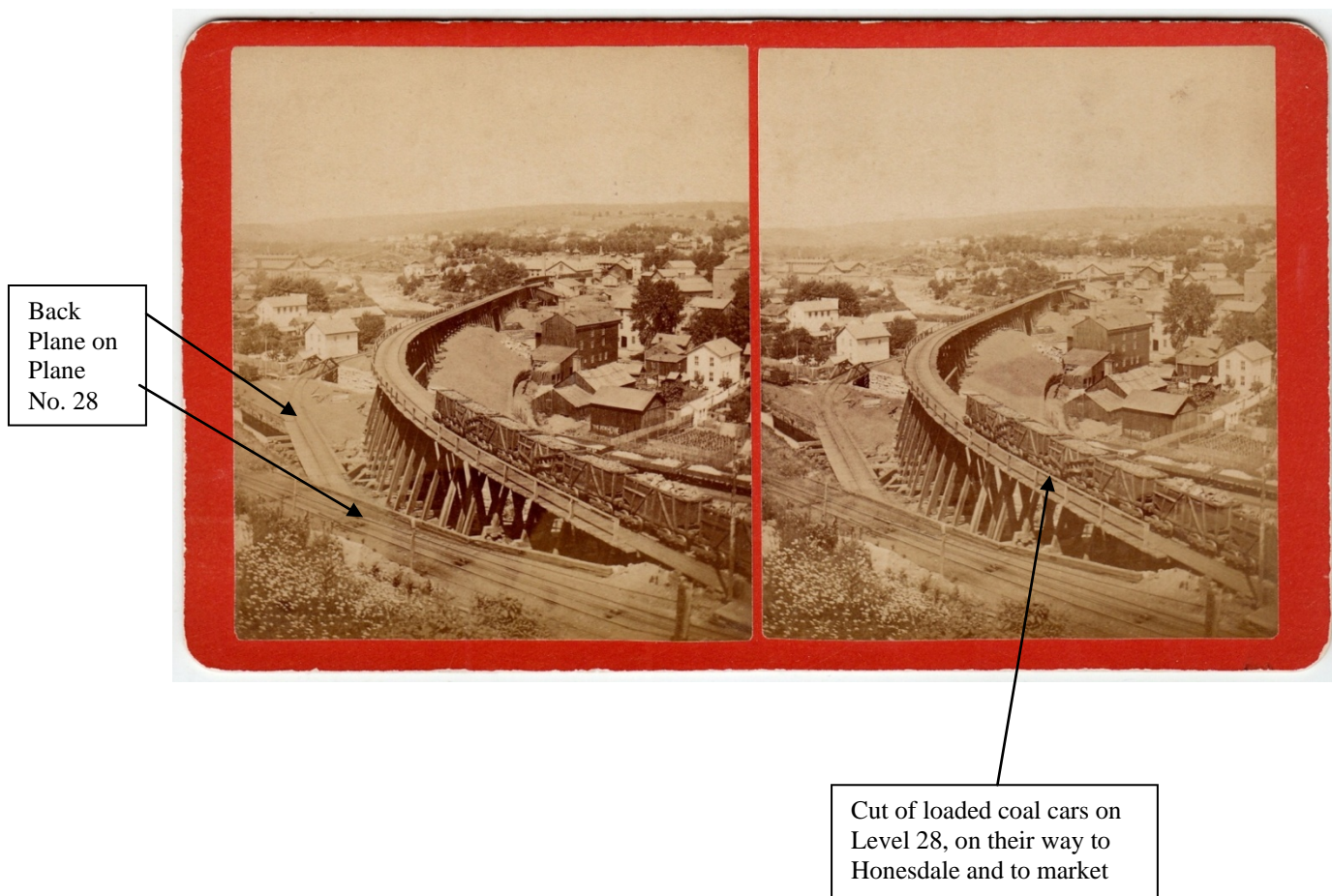
Hendrick Oil Works Still in Same Location in 1902:

In the newspaper article titled "Workmen Unearth Old Waterwheel" that was published in a Carbondale newspaper on January 29, 1902, we read: "The company is also making extensive changes west of the railroad. The old canal bank has been cut down and a strip of land extending from the Hendrick oil works to the city station has been graded for tracks. This will be used as additional yard room, of which the company is badly in need."

1144

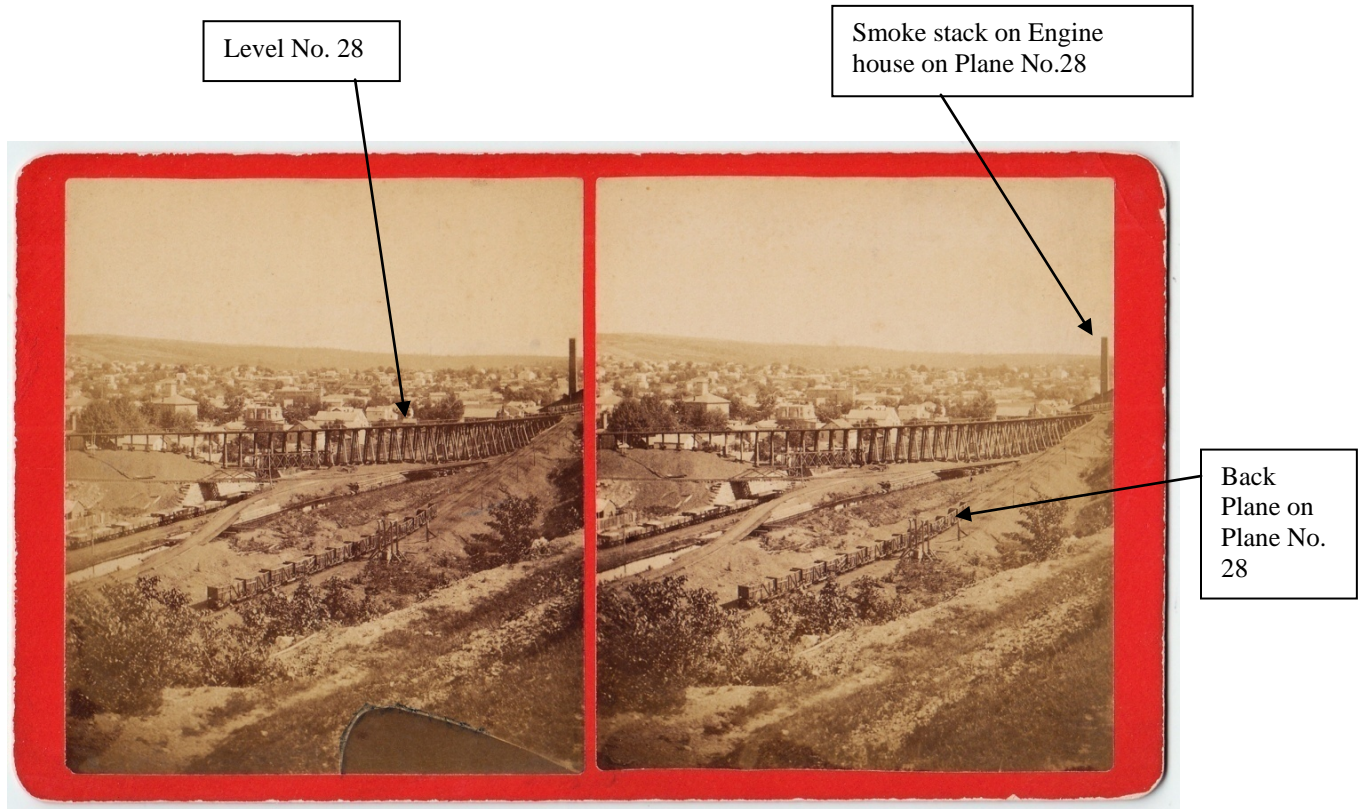
Hensel No. 1144: *View of Highworks [Level 28] and Shops from Head of No. 28 Plane*

The cut of loaded coal cars in this image are on Level 28, on their way to the foot of Plane No. 1, for shipment over the Moosic Mountain to market. The tracks leading off to the left are the North Plane of Plane No. 28. Via the North Plane (sometimes called the Back Plane), coal from the Coal Brook Breaker in the D&H Yard was fed into the Gravity Railroad system for shipment to Honesdale.



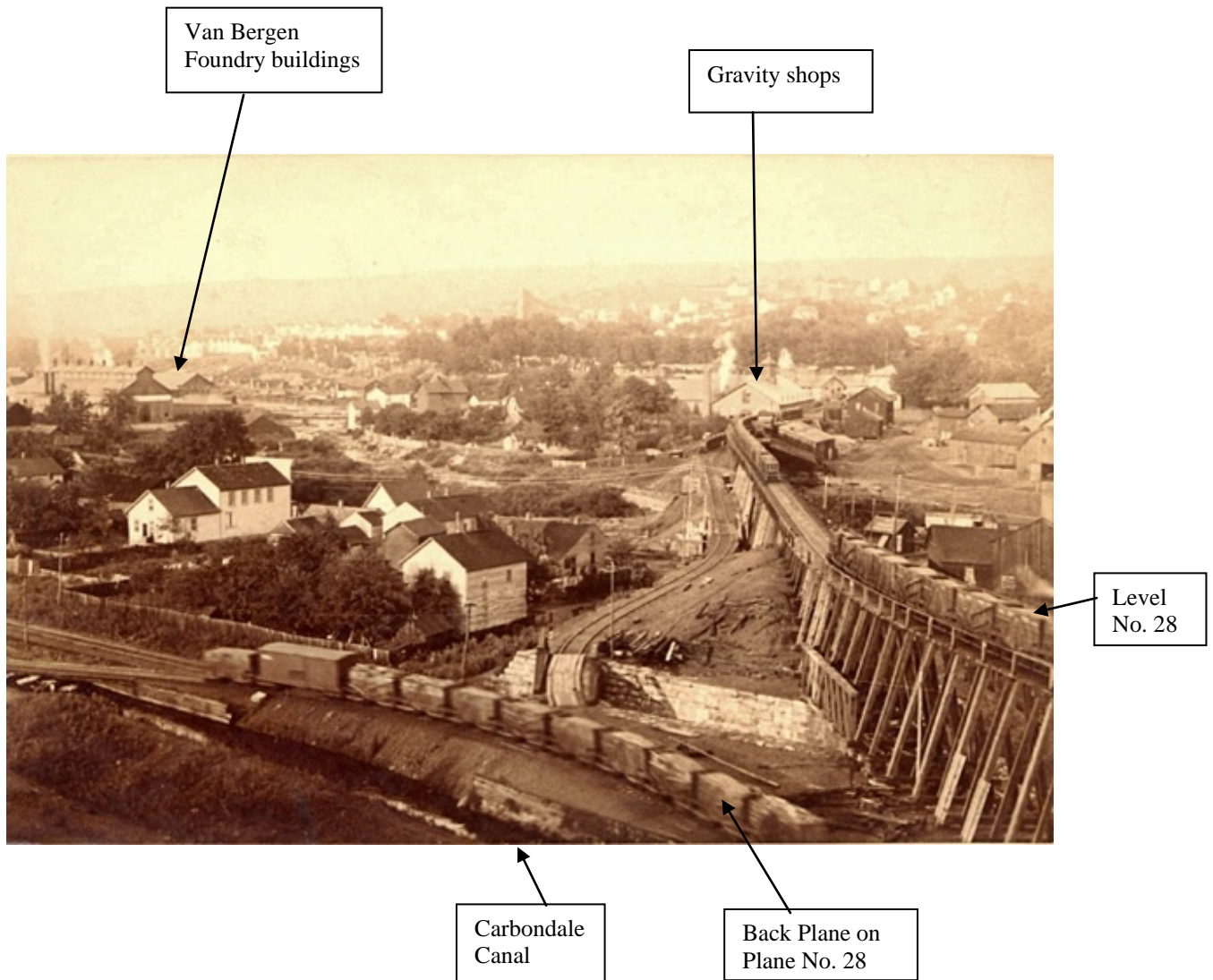
1186

Hensel stereocard No. 1186: *Head of No. 28 Plane, and Carbondale seen from above the Highworks* (The smoke stack of the engine house is on the right; the north plane is in the center foreground; the canal/raceway to provide waterpower is also shown; as is the 1860 City Hall. The Highworks from the engine house to the left, to the foot of Plane No. 1 is Level 28)



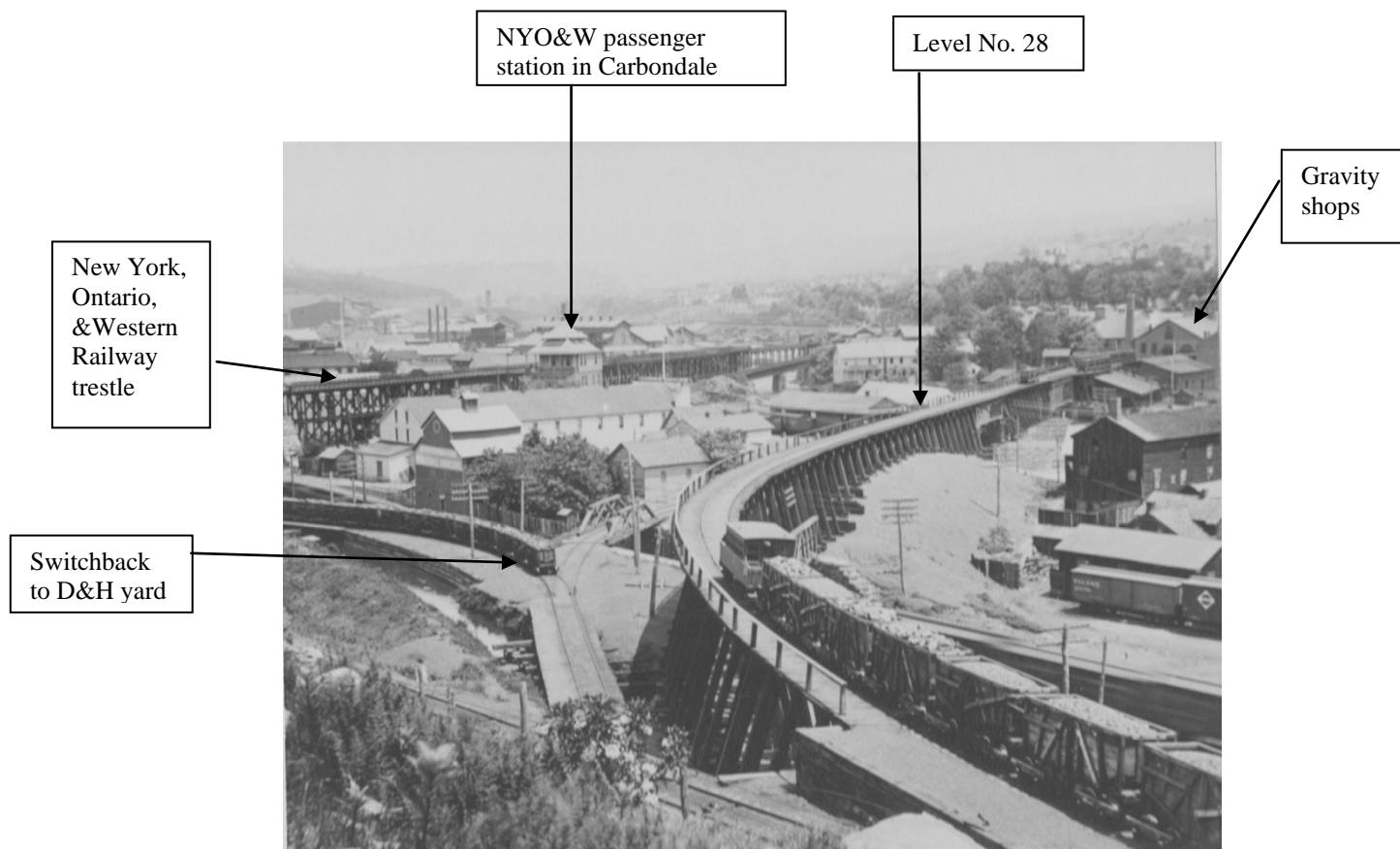
Hensel view? The photograph given below of Level 28 and the Back Plane is a download from the Internet. The loaded cars in the foreground are being pulled up the Back Plane and will then be sent, via the switchback there, to the foot of Plane No. 1, seen in the background on the right. The loaded cars on the highworks (Level No. 28) are on their way to the foot of Plane No. 1. The Carbondale canal is seen in the foreground, left. The operations of the Van Bergen Foundry are seen on the far left, in the background.

In 1881 John McComb said the following of Plane no. 28: "At No. 28 there are two inclined planes. The one on the upper side is known as the 'north plane' and is nearly five hundred feet long. The one on the lower side is called the 'south plane' and is ten hundred and eight feet long. On the north plane is operated most all of the coal that is brought by locomotive power from the Erie Breaker, situated about two miles below here; also part of the coal prepared at the Lackawanna Breaker, the largest coal breaker in the world, which is situated about a half-mile above here. Besides the coal, a large number of empty cars that accumulate at the transfer pockets are taken back to the gravity road by means of the north plane. On the south plane is operated the greater part of the coal brought from the different mines between Wilkes-Barre and Carbondale; also the passenger and freight trains which are run between Carbondale and Honesdale."



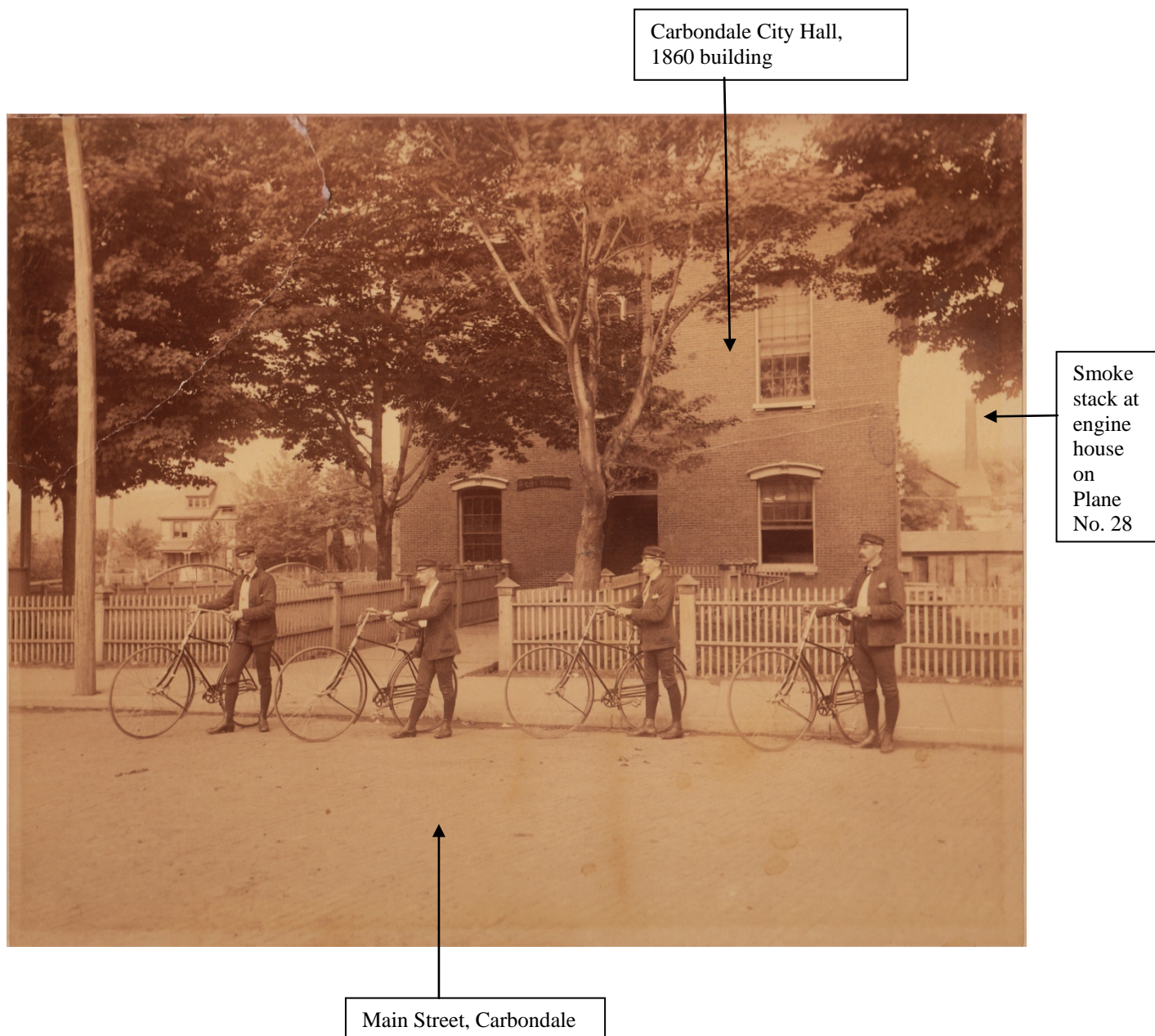
1192

Hensel No. 1192: "Highworks of the D. & H. Road across Dundaff St." from *Views Along the Honesdale Branch of the New York, Lake Erie & Western Railroad, Photographed and Published by L. Hensel, Port Jervis, N.Y.*"



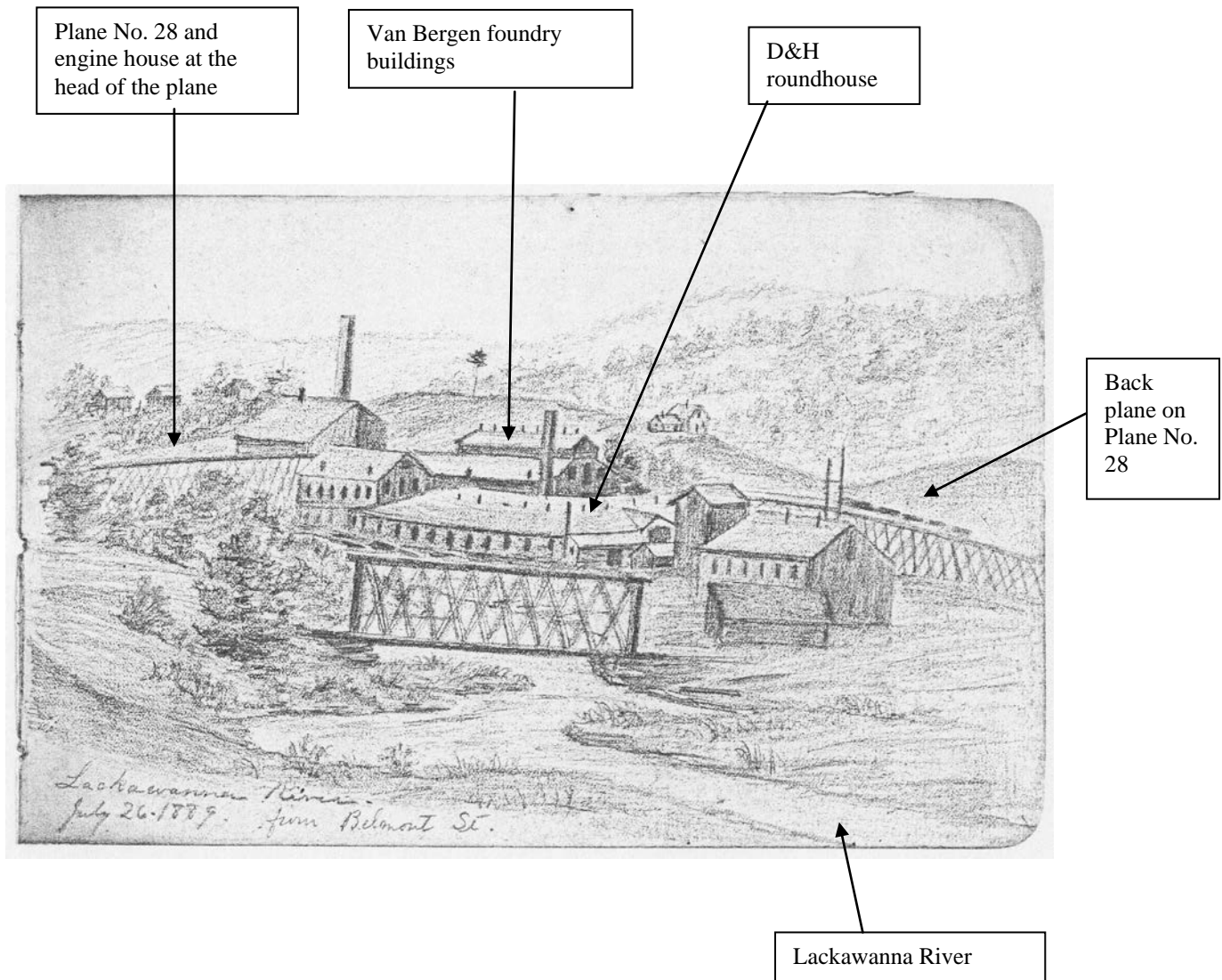
Smokestack on Plane No. 28 Seen from Main Street:

The smokestack on the engine house at Plane No. 28, see from Main Street in Carbondale, is shown in the photograph below of the first bicycles to arrive in Carbondale. The smokestack is visible to the right of City Hall. This photograph was taken in August, 1891, at the site of the present Carbondale City Hall. Shown here with the first four safety bicycles used in Carbondale are, left to right, Herbert E. May, Thomas Levison, D. B. Avery, and H. F. Elbrecht. An original print of this photograph was among a collection of May and Crane family memorabilia that was donated to the Carbondale Historical Society in August 2011 by Richard and Jean May, Hockessin, DE.

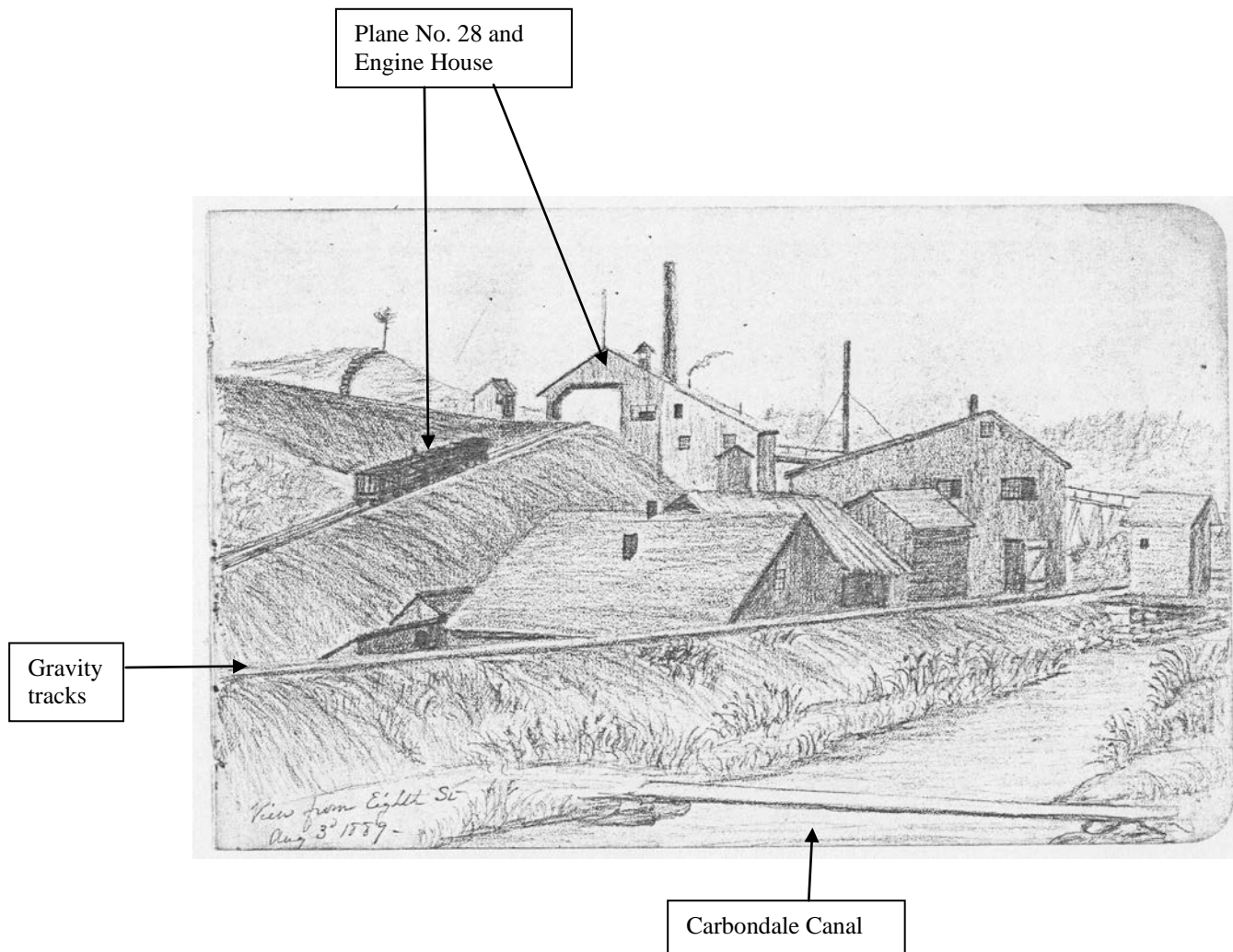


Ricker Sketch of Engine House at Plane No. 28:

Shown below is “Lackawanna River – July 26, 1889 from Belmont St.” from the M. B. Ricker sketch book titled “Carbondale Sketches – Summer of 1889 - M. B. Ricker,” in the collection of the Russell Homestead, Carbondale. Shown in this sketch are the engine house at Plane No. 28 the roundhouse , the Van Bergen Foundry buildings, and the highworks (Level No. 28) leading from the head of Plane No. 28 to the foot of Plane No. 1.



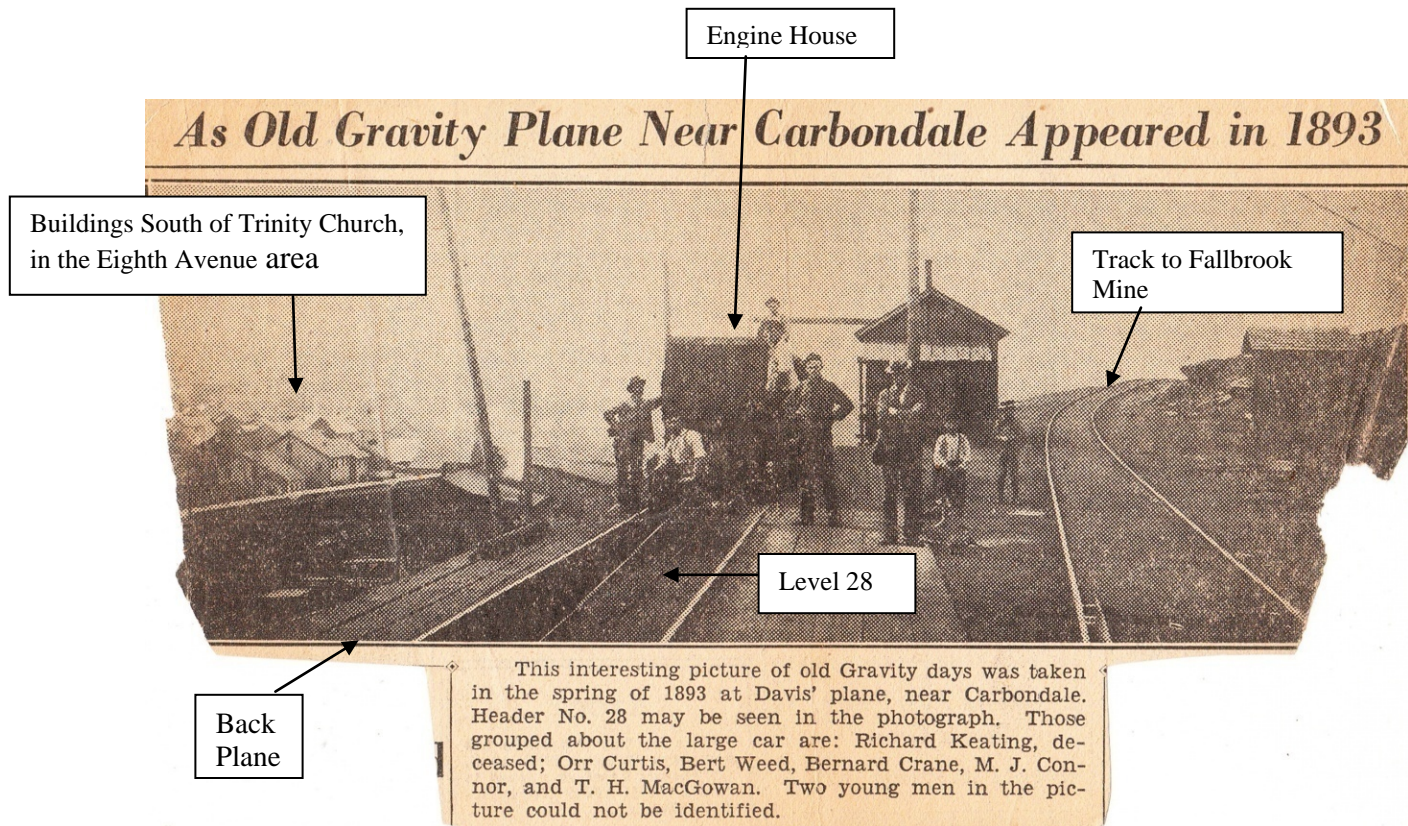
Another view from the Ricker sketch book, titled "View from Eighth St. – Aug 3, 1889." In this view, the Carbondale Canal is seen in the foreground right; the Engine House at No. 28 is seen in the center of the sketch, executed from Eighth Avenue, looking up the valley.



Rare Photo of Head of Plane No. 28:

Shown below is the only photograph known to exist of the head of Plane No. 28 in Carbondale. This newspaper clipping was among a collection of May and Crane family memorabilia that was donated to the Carbondale Historical Society on August 9, 2011 by Richard H. May of Hockessin, DE. Six of the persons shown in the photograph are identified in the caption on this photograph, taken in the spring of 1893. From John V. Buberniak we have learned that in the photograph, we are looking South. The engine house itself is the building on the left of the two buildings in the center of the photograph. The track on the far left that descends to the lower left

towards the spectator is the Back Plane, by means of which loaded coal cars, from the Coal Brook Breaker, were pulled to the head of Plane 28 and then placed on Level 28 at the head of Plane 28 and then sent through the Gravity Railroad system to Honesdale and to market. The middle track of the three sets of tracks shown in this photograph is the beginning of Level 28, which descended on the highworks in Carbondale to the foot of Plane No. 1. The track which curves out of the photograph to the right, is a track on the embankment adjoining the head of Plane 28 to a nearby mine (Fallbrook Mine). The buildings seen on the far left in the photograph are those that were located south of the Trinity Episcopal Church in the Eighth Avenue area.



Plane No. 28 Was Keystone of Gravity System:

In his article titled "The Gravity Railroad," (September 3, 1901), McComb says that Plane 28 was "the most important of all the planes operated between Olyphant and Honesdale." All of the planes were, it can be argued, of equal importance, since all of them had to be working perfectly for the whole system to operate perfectly. Plane 28, however, was very much a keystone in the system in that it provided access to the system at Carbondale, both by loaded and light cars, as well as passengers.

Alice Rashleigh Recalls Plane No. 28:

In installment number one of her history of Carbondale that was published in the *Carbondale News* in 1946 ("City to Be 95 Years Old Friday; Miss Rashleigh Writes Interesting History Starting in the News Today"), Alice Rashleigh, who lived at 36 River Street (the back of her house was very near Plane 28), Miss Rashleigh states: "Another [mine] opening was made in the hill back of Dr. Finneran's office [the back of which was very near Plane 28]. At one time a miner could enter there and go underground to what is now Powderly. / Today the Booth Company is leveling off the hill in which there is still coal. As I watch the work, it seems as though I know every rock that comes tumbling down the place where Head House No. 28 was built with its north and south planes, the latter being called Davis's plane, up which the cars were brought and from there over the 'High Works' by slight incline to the 'foot' of No. 1 at North Main street where the 'old White horse' pulled them into place--ready to start, on the trip to Honesdale and back again."

John McComb on Plane 28:

At No. 28 there are two inclined planes. The one on the upper side is known as the 'north plane' and is nearly five hundred feet long. The one on the lower side is called the 'south plane' and is ten hundred and eight feet long. On the north plane is operated most all of the coal that is brought by locomotive power from the Erie Breaker, situated about two miles below here; also part of the coal prepared at the Lackawanna Breaker, the largest coal breaker in the world, which is situated about a half-mile above here. Besides the coal, a large number of empty cars that accumulate at the transfer pockets are taken back to the gravity road by means of the north plane. On the south plane is operated the greater part of the coal brought from the different mines between Wilkes-Barre and Carbondale; also the passenger and freight trains which are run between Carbondale and Honesdale. Six men are required to run the coal over the head of Davies's plane. One engineer and his assistant work on the inside, and four men called runners handle the cars on the outside. The cars are drawn up the south plane by means of an endless steel wire cable, one and one-fourth inches in diameter, which passes over a four foot sheave wheel [McComb in 1901: "four foot sheave wheel in a pit immediately below the surface of the railroad. Accident, Harry Moon killed in sheave pit, *Carbondale Advance*, October 14, 1876, p. 3, article immediately below this main text] at the lower end of the plane." *John McComb*, 1881

Homer Grennell Helped to Build the Highworks:

"Death of Homer Grennell. Another of our residents has passed away. Homer Grennell died in this city on Saturday, April 19, 1879, aged about 75 years. Mr. Grennell came to Carbondale about the year 1837. He was a carpenter, and was first employed in building the high trestle work

from the foot of No. 1 to Davis' Head. Later he became foreman in the Car Shop, or "Hospital,*" as it was then called, where he remained a faithful servant of the company for many years. Leaving this position he embarked in the mercantile business in which venture he lost the handsome property accumulated in former years. For some years prior to the abolishment of our Mayor's Court, he was the crier, and in that capacity discharged his duties with great acceptance to the Court and Bar, and gained the good wishes and esteem of all having business in the Court. Since 1875 he has been practically laid aside, and has suffered much from ill health. Mr. Grennell was a man of strong and earnest convictions, and he was very faithful to them. A man of good Christian judgment, and withal a sincere Christian. Honored in civil life and in the church,--esteemed in the social circles in which he moved, he has passed away ripe in years, and his memory will be cherished by all who knew him." (*Carbondale Leader*, April 26, 1879, p. 2)

*The car shop burned in 1864. See p. 238 in the volume on the 1899 configuration.

Machinery Break at No. 28 in August, 1860:

"A break occurred at Davis' Engine on Wednesday, which delayed the passage of coal trains a few hours. It was again ready for business early Thursday morning." (*Carbondale Advance*, August 18, 1860, p. 3)

Water pipe to engine on Davis' plane:

"—Since the break in the water-pipe which conveys water across the river to the engine at Davis's plane, a donkey pump has been used to supply the boilers with water." (*Carbondale Leader*, May 26, 1877, p. 3)

The "level" between Plane 28 and the foot of No. 1, as seen behind the Mitchell Hose Company in the circa 1890 photo that is given below. Note that the Mitchell horses, Dan and Diamond, are bursting forth from the hose company, en route to a fire, in this photograph.

Level No. 28,
1859-1899



Davis Engine House Burns 1891:

In “The Watch Tower Destroyed” (see complete article in the Appendix) we read: “. . .the [fire] alarm sounded [when the Davies’ engine house was destroyed on January 5, 1891] was not the vigorous tooting that the townspeople are accustomed to hear when a blaze is discovered and the firemen knew that the whistle was not operated by the [regular] watchman who is a master hand at sounding a fire alarm. As the ward signal was not sounded men who were first upon the street were at a loss to know in which direction to look for smoke and many were disposed to believe that it was a false alarm. Only a few minutes elapsed however before smoke was seen issuing from the roof No. 28 engine house. . . Elias Thomas, the veteran watchman [at 28; the Thomas family on River Street were good friends of the Russells on River Street], began his term of service August 19th 1862 and the destruction of the building where he has faithfully stood guard for a lifetime [almost 30 years] is a serious blow to him and the old gentleman is bowed down with grief to-day, mourning as if he had been forced to part with his dearest friend. Davies’ engine house has been the watch tower for the city and Mr. Thomas has sounded the fire alarm promptly all these years at the first appearance of smoke or blaze. . .”

Engine and Boiler at No.28 Burned in 1891:

"No. 28. . . Morning of Jan. 5, 1891, engine and boiler house burned. Put in new engines and made necessary repairs and hauled first trip Wednesday afternoon." (*Joslin/Davies*)

Head House at Plane 28 Burned in 1891:

Installment number three of Alice Rashleigh's 1946 history of Carbondale (Carbondale Became City 15 Years Before Scranton-Miss Rashleigh"). Miss Rashleigh states: "Before we had a fire system, Elias Thomas, one of the Welsh miners, kept watch over the city for 28 years, tooting 1, 2, 3, or 4 on the gong of Gravity engine 28, according to the ward where he saw a light in the sky. It was indeed terrifying as '28' was directly back of our home. In the late 80's, '28' burned in the early morning. We feared sparks might reach our home and began gathering things together to be ready in the event. / Afterward, Mother asked: 'What treasure did you save?' / 'Just a boy's picture,' I replied, and she just looked at me, thinking I was silly. But then folks do silly things at a time like that." [On the morning of January 5, 1891, the engine and boiler house at No. 28 burned. This is probably the fire to which Alice Rashleigh is referring.]

Davis Engine House 1859-1891:

January 5, 1891: The present gravity railroad was completed May 1, 1858, but it was a year later when the changes were made which resulted in the erection of the Davies engine house.

No. 28 engine house (erected 1859) burned on Monday, January 5, 1891; one or possibly two of the boilers exploded, throwing the fire from the furnaces. "While the timbers were still blazing, lumber for the new building was brought in car loads and carpenters were busy at work framing the huge sticks. . . A new pair of engines which were stored at No. One engine house are being loaded upon cars and will be ready for transportation during the afternoon. . . It is expected that everything [will be] in readiness to resume business by Wednesday night or Thursday morning." Detailed description of the fire in "THE WATCH TOWER DESTROYED. Davies' Engine House Destroyed by Fire This Morning." (Carbondale Leader, Monday, January 5, 1891; in Appendix and in a Gritman scrapbook).

Railroad Changes; Highworks to Come Down, 1899:

"TRACK WILL BE READY TONIGHT. / Completion of the New Siding—Temporary Change in Highworks—A Reminiscence--Rumor. / Remarkably rapid work has been done by the men engaged in laying the new switch at the city station of the Delaware & Hudson. It will be nearly completed tonight. The switch will be used for the Erie and Honesdale branch trains. /

It is expected that work will be commenced on Monday in raising the Main line tracks as they pass under the old Gravity highworks. There is a sag in the railroad there of one foot. This is to be filled in. The work will necessitate some changes in the lower part of the highworks to allow the large cars to pass under. This will be only for a short time, however, for as soon as the machinery has been removed from No. 28 engine house the highworks are to be torn down. / The demolition of this structure which for half a century has been one of the landscape and industrial features of the city will recall to the few of our old residents the incidents connected with its erection and initial operation. / A REMINISCENCE. / One of the most memorable was the sorrowful accident which occurred at the time of the first test made of the strength of the structure. While a trip of loaded coal cars was passing over it the trestle gave way at the Dundaff street crossing and the cars were precipitated to the ground beneath. Hannibal Peck was in charge of the trip and all who witnessed the terrible affair believed that he was instantly killed in the fall. He was alive, however, when extricated from the big mass of wreckage but the physicians who were called at once said he was fatally injured. His arms, legs and ribs were fractured—in fact nearly every bone in his body was thought to be broken. He lingered in a doubtful condition for a time and then began to improve. His ultimate recovery was considered one of the miracles of the time. . . (*Carbondale Leader*, May 13, 1899, p. 5)

High Works bridge over Dundaff Street to come down:

“MORE CHANGES IN THE D. & H. The Highworks Coming Down—A Half Dozen New Mine Openings in the City. The Delaware & Hudson carpenters under the supervision of John O. Miles are engaged today in taking down the high works bridge over the steam road. The trestling between the bridge and No. 28 head will also be taken down at once. When the work is finished there will be a very noticeable gap in the business structures of the town. . . (*Carbondale Leader*, June 2, 1899, p. 5)

Engineers at the head of Plane No. 28:

The engineers employed there from the time the plane was installed in the 1850s were named Davies. The first engineer in charge was Thomas Davies who held the position until he died, March 5, 1865. In May of the same year, E. Y. Davis took charge of the engine and remained in the position for twenty-one years and was succeeded by the present engineer John McCawley, in May 1886.

“No. 28, Thomas Davis. After his decease E. Y. Davis*, transferred from No. 3, followed by John McCawley and Walter Wills. Morning of Jan. 5, 1891, engine and boiler house burned. Put in new engines and made necessary repairs and hauled first trip Wednesday afternoon.” (*Joslin/Davies*)

*See the note on the running of the Stourbridge Lion by John C. Davies in the volume on that engine in this series.

Davies class: What topic?:

"E. Y. Davies has a fine class of young men, who meet him in the D. & H. rope barn every night in the week except Saturday and Sunday." (*Carbondale Advance*, November 1, 1879, p. 3)

Resignation of E. Y. Davis at Plane 28 in 1886:

"Ex-Postmaster Davis has resigned the position of engineer at No. 28 stationary engine on the D. & H. Gravity road, better known to our readers as "Davies' Engine," and has accepted a position as Supt. of machinery in an oil works in New Jersey, about five miles distant from New York city. We have been able to learn the name of the company operating the works at the moment of going to press. Mr. Davies has been a life-long resident here, and has always been one of our most active and intelligent citizens and his removal would be a loss to our town. He is also considered one of the best engineers on the Gravity, and is one of the longest in service of the company. We learn that Mr. Davies' resignation has been accepted conditionally, that is, he has the privilege of resuming his old position any time within two months, should he desire to do so. He will leave to-morrow to enter upon his new duties. John Cawley, for many years fireman and assistant engineer at No. 28, has been appointed to succeed Mr. Davies—a well deserved promotion." (*The Journal*, April 29, 1886, p. 3)

Elias Thomas was the watchman at Engine No. 28:

"ELIAS THOMAS, watchman at engine No. 28 since 1862, has been a resident of Carbondale since 1832, and in the employ of the D. and H. Canal Company since 1836. He was born in Wales, June 6th, 1823, and married Bridget D. McCaulay." (1880, p. 452E)

"Elias Thomas was the scion of a family of the first Welsh immigrants recruited in the early 1830s by the Delaware & Hudson Canal company to introduce Welsh mining techniques to the Carbondale mines. Born June 6, 1823, he arrived in America with his family a nine year old. He was sent to work for the company at the tender age of 13 and began a lifetime association with the D&H, becoming a watchman at Engine No. 28 in 1862. He was married to Bridget McCaulay: Jerry Palko notes

Elias Thomas was Thomas Meredith's Agent:

A million feet of boards required: "**To Lumbermen**, / The Subscriber, will receive proposals for drawing, next winter, white pine saw logs, to his Carbondale mill, sufficient to make a million of feet of boards, if required. / The logs will be placed on skids, on sides of a good winter road, having a gradual descent to the Lackawanna creek--the distance from the mill, will be from two and a half to three miles. / For particulars, apply to the Subscriber, at Carbondale--or to Elias Thomas his agent, at the Carbondale Mill, who will shew the timber and the land, and give every information. / **Thomas Meredith**. / Carbondale, Sept 26 1833 2m" (*Northern Pennsylvanian*, Thursday, September 26, 1833, p. 3)

Elias Thomas also looked after the horses at the stable between Planes 2 and 3; also served as night watchman at Plane 28.

Elias Thomas Resigns 1892:

“30 YEARS AT THE TOWER. Watchman [Elias] Thomas Ends His Public Service on His Anniversary. It will be something of a surprise to the residents of this city to learn that the venerable watchman who has stood guard nightly, for thirty years at Davis head, has been removed and that the place is to be held hereafter by a new man,--one who can in addition to the duties of night watchman clean the boiler fires and wheel out the ashes that accumulate during the night. The order under which this extra fell to the night watchman was issued several years ago, and Mr. Thomas performed the extra labor as long as he was able and when his strength failed he entered into an arrangement with the regular fireman to do the work, paying him a satisfactory amount for the services so rendered. / This arrangement kept the veteran guardian in place for more than a year, but a few days ago Mr. Thomas was notified that the fireman was not allowed to do the watchman's extra work after August 30th and he must either do the stoking and ash-wheeling or get out and give a stronger man a chance at the job. / Mr. Thomas has passed that period in life when coal heaving and laborious work of that character is easily done, and the notice to him was simply notice to quit. Corporations as a rule do not allow sentiment to interfere with the rigid rules under which corporate affairs are managed, although we do occasionally hear that a faithful employe has been retired with half pay during life. / These evidences of corporation generosity usually happen 'out west' or in some remote region, for it is generally conceded that such concessions are quite unknown to the great corporation that has so long held sway in this end of the coal region. No organization was ever more successful in securing men to do their bidding and the plain everyday wage earner has always been turned aside when no longer fit for service. / Fifty-six years ago last May, Mr. Thomas did his first work for the Delaware & Hudson Canal company and has been continuously in the employ of the company since that time. Just thirty years ago today, he entered upon his duties as watchman at Davis' engine house. In those days Charles P. Wurts was general manager and Thomas Hurley was master mechanic on this end of the gravity railroad. / Mr. Hurley was a jovial good natured gentleman and one day he said to Mr. Thomas, 'Elias, you are getting the worse for wear and the chances are you won't last many years, I guess we'll make you watchman at Tom Davies' engine and give you a chance to keep an eye on the town when the people are all sound asleep.' So it came about that Elias gave up running cars and took his place at what is now called engine No. 28. / For three decades he has served the company faithfully and to the people of this city he has rendered good service. Ever vigilant, the first sign of a blaze sent him to the engine room and the screeching, hissing thing that they call a 'steam gong' sent forth the alarm that never fails to arouse the firemen. Today Mr. Thomas will begin to instruct his successor on the watch tower and upon the last day of this month he will go in search of employment elsewhere. Worn out in the service of the company, physically unfit for manual labor, his life lease crowding the last year of the limit he goes out in the world seeking occupation that will employ his time and secure him as compensation just money enough to pay for what he needs. Thus endeth a term of service that is perhaps without a parallel in the history of any man or corporation.”(*Carbondale Leader*, Friday, August 19, 1892, p. 4)

There was another Elias Thomas in Carbondale in the 1870s. This second Elias Thomas was a mining boss for the D. & H. C. Co., and in 1873 he became the business partner of Eli E. Hendrick:

Elias Thomas Resigns, 1873:

“Resigned. / Mr. Elias Thomas, for many years one of the mining bosses of the D. & H. C. Co. in this city, has resigned his position, for the purpose of giving his whole attention to the coal business in which he has engaged with Mr. Hendrick. They run the first coal through their Breaker on Thursday.” (*Carbondale Advance*, January 4, 1873, p. 3). There is a very large space ad, 7” x 7 ¾”, on page 2 of the January 11, 1873 issue of the *Carbondale Advance* with this text: **“PREPARED COAL! / HENDRICK & THOMAS,** / Having finished their new Coal Breaker, are now ready to supply / **WELL PREPARED COAL OF ALL SIZES,** / At the following prices, delivered: /**GRATE, EGG AND STOVE, \$2.75, CHESTNUT, \$2.50, PEA, \$1.75** / per Ton. PLEASE GIVE OUR COAL A TRIAL. / Office for Receiving Orders with J. M. POOR, / No. 318 NORTH MAIN STREET, CARBONDALE. / January 11, 1873.”

There is also and **Elias E. Thomas** in Carbondale in the mid nineteenth century:

In 1880 (452E), we read: "ELIAS E. THOMAS was born in South Wales, October 2nd, 1830, and married Ellen Jones, of Carbondale, where he has lived since 1853. He was a member of the common council in 1867. Mr. Jones, his father in law, came to Carbondale in 1832."

Welsh note: Elias E. Thomas' wife's father, Mr. Jones, was surely among the 70 Welsh families that were brought to Carbondale in 1832 by the D&H.

To meet its market needs, the D&H made the decision in 1830 to conduct deep underground mining by means of shafts. To secure the expertise needed to establish shaft mines, the D&H recruited shaft sinkers from Scotland. At the same time, they recruited, in 1830, twenty Welsh families to come to Carbondale and to teach the D&H how to conduct deep underground anthracite coal mining. In June, 1831, in Carbondale, the first deep underground shaft mine in America was established. The mining engineer in charge was Archibald Law from Scotland. That mine opening was on the north side of Seventh Avenue on the west side of the D&H tracks, at the D&H Seventh Avenue crossing in Carbondale. Additional Welsh miners were recruited by the D&H in October/November of the following year, 1832, when a party of seventy Welsh miners and their families came to Carbondale.

Accidents, Facts about the Plane, Daily Life (Plane and Level 28)

Whistle at No. 28 was City Fire Alarm:

In 1901, *McComb* says this of Plane 28: "Located in the Second ward, on the prominent bluff which is easily seen from the municipal building, looking west, it was a landmark well known and well remembered by all Carbondale's people and visitors, by reason of its signal whistle being used as our fire alarm. Thousands of our people well remember the intonation of that ear-piercing gong. . ."

Davis fire whistle announces fire on Welsh Hill, 1860:

"The shrill whistle of 'Davis' Engine a few minutes after 12 o'clock on Fright night aroused the town, when fire was discovered on Welsh Hill, proceeding from an unoccupied dwelling-house belonging to a poor woman whose husband was killed some years since in the mines. It was totally destroyed. . . " (*Carbondale Advance*, August 4, 1860, p. 2)

Rees accident at No. 28, 1860:

"On Saturday, David Rees, a lad of ten years of age, while picking up coal on the plane below Davis' Engine, was run over by the cars, bruising the thigh very severely, and also crushing the arm at the elbow so badly as to make amputation necessary. The operation was immediately performed, while the patient was under the happy influence of the chloroform, by Dr. Ottman assisted by Dr. Foote. The boy is doing well." (*Carbondale Advance*, September 8, 1860, p. 3)

1868: Accident near Davis' engine in which Edward Engle was seriously hurt:

"**Railroad Accident.** / Edward Engle, son of Peter Engle, was seriously hurt upon the Railroad in town, near Davis' Engine, on Saturday last. He was considered in a precarious condition at first but has since been improving and it is thought will recover." (*Carbondale Advance*, Saturday, October 17, 1868, p. 3)

Accident on Back Track, 1872:

"Eight or ten rude and barbarous boys were amusing themselves with a hand-car, on Sunday last, on the back-track from foot of No. 1 plane, and one of the party lost his equilibrium, causing the car to injure his left arm." (*Carbondale Leader*, September 14, 1872, p. 3)

Band on Highworks:

"Monday evening the Continental Brass Band gave our citizens a musical treat from the top of the highworks leading to No. 1 plane. The location of the band enabled the music to be heard over town quite distinctly some distance." (*Carbondale Leader*, May 24, 1873, p. 3)

Company fire whistle:

"**A Fire.** / The fire whistle at Davis' Plane gave a vigorous alarm, at about 3 o'clock on Monday morning last. An unoccupied dwelling house vacated by Mr. Brown, on Shanty Hill, and owned, we believe, by J. Alexander & Sons, was discovered to be on fire, and burned down." (*Carbondale Advance*, December 6, 1873, p. 3)

Fallon's Greenhouse near Highworks; moved to rear of Trinity Church :

"**Fallon's Green-House.** Mr. Bernard J. Fallon, the gentleman who built a green-house recently on Dundaff street, near the highworks, and after it was completed, was compelled to remove it, has found another piece of ground on the Company's property in rear of Trinity church. Mr. Fallon is a first-class gardener of twenty years' experience, is a hard-working man, and is greatly desirous of establishing a green-house here. He thought, when he erected his green-house on Dundaff street, that he has got the permission of the real estate agent of the D. & H. C. Co., but he was told as soon as he had finished the work—on which he had labored for two or three weeks—that it must be removed at once as there was danger of the culm being set on fire. This was the excuse the authorities offered, and Mr. Fallon immediately took the building away. The writer had a conversation with Mr. Fallon a few days since and learned from him that it was his intention, provided a suitable plot of ground could be leased, to start a first-class green-house this fall, as autumn is the proper time to begin the propagation of plants where all kinds of exotic and native plants and flowers will be grown constantly. That such a place is needed in Carbondale is known to all our people who are lovers of flowers. Too little attention has been paid here to the cultivation of these beautiful gifts of nature, which one always sees around the homes of well-to-do and refined people. Mr. Fallon intends, if he meets with no further misfortunes, to be able

next season to furnish flowers for funerals and weddings, church and residence decorations, and bouquets of all sizes and varieties. He will not confine his business to this city entirely, but will cater to the villages down the valley, to Honesdale and Susquehanna. / Mr. Fallon returned to Carbondale last spring. He was formerly for many years a resident of this city, and moved from here in 1866. He had charge of Mr. P. T. Barnum's extensive grounds at Bridgeport, Conn., for a few years, after which he went to work for Mr. Story, editor of the *Journal of Commerce*, whose beautiful residence at the corner of Fulton and Franklin avenues, Brooklyn, we have often admired. He has also worked on Prospect Park, Brooklyn, and for some time was gardener on Mr. D. P. Barnard's premises on the Hudson. He understands his business thoroughly, and with the proper local encouragement he will succeed as he certainly deserves to succeed." (*Carbondale Leader*, November 14, 1874, p. 3)

John Willis, footman at Plane No.28, seriously injured in a Accident on Davis Plane:

"A young man names John Wills was seriously injured at the foot of Davis' plane on Thursday afternoon last. In jumping upon the cars he missed his footing and fell to the track, one or two wheels passing over one of his legs, crushing it badly. One foot and ankle were smashed, and the leg to near the knee, but hopes are entertained of his recovery." (*Carbondale Advance*, February 13, 1875, p. 3)

New Whistle at No. 28 in 1875:

"The new whistles at Davis's plane do not agree with peevish and dyspeptic people. Healthy persons like the sound, and listen with eagerness and pleasure every time the times are blown; but cross-grained and nervous parties whine about the 'awful noise' and refuse to be comforted." (*Carbondale Leader*, December 4, 1875, p. 3)

Reaction to new whistles at No 28:

Item in the *Carbondale Advance* of December 4, 1875 (p. 3): “The new steam whistle or chimes on Davis’ Engine are the amazement and wonder of all strangers. They are loud and strangely melodious.”

Yarrington Photo from Behind No. 28, in 1876:

“Mr. H. C. Yarrington, the photographer, has recently taken a bird’s-eye view of Carbondale, taken from the knoll just north of the Graded School building back of Davis’s engine. The business portion of the town, and all the most prominent buildings are plainly shown. A wood-cut of the view is to be made for a history of the State, a work which is being written by a gentleman of Harrisburg.” (*Carbondale Leader*, May 13, 1876, p. 3)

Harry Moon accident at shieve pit on No. 28:

“**Sad Accident.** / On Tuesday evening, when the last trip was being made on the Gravity road, Harry Moon, oldest son of John Moon, at the gashouse, a bright, intelligent lad, in his fourteenth year, while crossing the railroad track [at the foot of Davis plane, we learn from the article in the *Leader*], caught his foot against the rail and was precipitated headlong on the wire rope, which run him into the sheive [sic], crushing one limb, stripping the flesh from the other, and injuring the lower part of his body. / He was attended by Dr. Charles Burr and Dr. Burnett, who rendered all the aid that was possible. / He lived through the night as comfortable as could have been expected, bearing up manfully, and speaking words of hope to his parents and others, till his decease at about 6:30 this (Friday) morning. Judge Poor was at the house shortly after the accident. Early this morning the parents of the boy were much encouraged, but his death suddenly and unexpectedly ensued from his internal injuries. / He never rallied so that amputation could take place, and consequently death was a mercy in disguise, saving the little fellow much suffering. Much sympathy was shown by the neighbors for the grief-stricken parents. / Funeral from the M. E. Church, whose Sunday School he was a member of, on Sunday afternoon. (*Carbondale Advance*, October 14, 1876, p. 3); accident also reported in *Carbondale Leader*, October 21, 1876, p. 3.

Harry Moon died from the accident at the shieve pit on No. 28:

“**DIED.** / Moon—On Friday morning, Oct. 13th, Harry Moon, aged 13 years. / He was caught by the wire rope near the foot of Davis Plane on the gravity road on Thursday afternoon and was fatally injured. While he lingered he showed great patience in pain, and seemed to think more of

the grief of his friends than of his own suffering. He spoke of his approaching death with calmness, and quoted with deep meaning the Sabbath School hymn beginning with, "I have a Savior, he pleading in glory." / Funeral services were held in the M. E. church on the following Sabbath at 3 o'clock in the afternoon. The pastor preached especially to the Sunday School. The relatives, the Sunday School headed by the class of which Harry was a member, and a large concourse of citizens followed him to the grave." (*Carbondale Advance*, October 21, 1876, p. 3)

Accident on Back Track, 1880; Patrick Loftus killed while crossing North Plane in 1880:
"Shocking Accident. A terrible accident occurred on this, Friday, morning, between eight and nine o'clock, resulting in the sudden death of Mr. Patrick Loftus, an old gentleman residing near Fall Brook. He was returning home from town, with a bag of potatoes on his shoulder, and while crossing the back railroad track, running up from Davis' plane to the breaker on the Flats [Lackawanna Breaker], was struck by a train of cars, and run over, and instantly killed. He was upwards of seventy years of age." (*Carbondale Advance*, April 17, 1880, p. 3)

Gilmartin Accident in 1881 at Davies's Head; Excellent description by McComb of how a Gravity Plane Operated:

On February 4, 1881, Michael F. Gilmartin met with a terrible accident on Plane 28 in Carbondale. See "Shocking Accident" in the *Carbondale Advance*, February 5, 1881, p. 3. The full particulars on the accident, by John McComb, were reported in the *Carbondale Advance* of the following week, February 12, and we will give here only the account from the February 12 issue.

The account of this accident that was written by John McComb and published in the *Carbondale Advance* of Friday 12, 1881 contains a detailed description of the accident. At the same time, it provides one of the best descriptions known to exist of how this plane—as well as the others in the Gravity system—operated. We present here the complete text of McComb's astonishing account.

"LAST WEEK'S RAILROAD ACCIDENT. Full Particulars of the Horrifying Accident at Davies's Head; also an Interesting Description of the Work Done on that Portion of the Gravity Railroad. By John McComb. /At about 1:30 P. M., Friday, February 4, 1881, Michael F. Gilmartin, while unhooking a trip of five loaded cars on the head of No. 28, D. & H. C. Co's R. R., met with an accident which horrified those who saw it, shocked those who heard of it immediately after it occurred, and put him in a condition that forever ends his railroading, and which will leave him a cripple for the rest of his life. / No. 28 is on the gravity road, and is

located in the Second Ward of our city. To the people of Carbondale it has always been known as Davies's Head, owing to the fact that the engineers who have been employed there, ever since the present road was built, have been members of the Davies family. Mr. E. Y. Davies is the present engineer. At No. 28 there are two inclined planes. The one on the upper side is known as the 'north plane' and is nearly five hundred feet long. The one on the lower side is called the 'south plane' and is ten hundred and eight feet long. On the north plane is operated most all of the coal that is brought by locomotive power from the Erie Breaker, situated about two miles below here; also part of the coal prepared at the Lackawanna Breaker, the largest coal breaker in the world, which is situated about a half-mile above here. Besides the coal, a large number of empty cars that accumulate at the transfer pockets are taken back to the gravity road by means of the north plane. On the south plane is operated the greater part of the coal brought from the different mines between Wilkes-Barre and Carbondale; also the passenger and freight trains which are run between Carbondale and Honesdale. Six men are required to run the coal over the head of Davies's plane. One engineer and his assistant work on the inside, and four men called runners handle the cars on the outside. The cars are drawn up the south plane by means of an endless steel wire cable, one and one-fourth inches in diameter, which passes over a four foot sheave wheel [McComb in 1901: "four foot sheave wheel in a pit immediately below the surface of the railroad. Accident, Harry Moon killed in sheave pit, *Carbondale Advance*, October 14, 1876, p. 3, article immediately below this main text] at the lower end of the plane. [McComb in 1901: "The sheave wheel was set on a carriage. The carriage frame was mounted like a truck on four small wheels, and the wheels set on a little track in the pit. To the rear end of the carriage a cable was attached as a tension. The tension cable was adjusted over a series of grooved pulleys and connected with a large box of stone hung in a frame at either side of the track most convenient. That box of stone acted as a counter weight, and was a very valuable adjunct to the equipment of a gravity plane. At intervals of 30 feet, grooved pulleys in pairs were placed in the center of the track on the plane to prevent the cables from touching the roadbed. Old employees of the gravity system well remember what happened when the footman put the wrong twist in the sling. For then the cable was liable to generate fire as the two would ride the pullies on one side, and one running up and the other down the plane the friction would make things hot.] ["PATENT PULLEY FOR INCLINED PLANES.—Mr. J. B. Vannan, of Carbondale, and N. P. Cramer, of this place, are the inventors of a process for hardening the center of pulley wheels commonly used on inclined planes. It is claimed that this process does away with the rapid wear of the rope upon the pulley, and prevents its cutting a groove so common to all ordinary pulleys after being in use for a short time, thereby saving the rope from the usual wear. A pulley of this kind will outwear at least a dozen ordinary ones, and save to all who use them an immense outlay. We understand they are highly approved by the Pennsylvania Coal Company, who have adopted them upon their planes. They cost about the same as the ordinary pulley. Any information in regard to the subject, or applications for territory or shop rights, should be addressed to N. P. Cramer, Pittston, Pa., or to J. V. Vannan, Carbondale, Pa.—*Pittston Gazette*." (*Carbondale Advance*, April 19, 1873, p. 3)] At the head of the plane is a drum, nine feet in

diameter, around which the cable is coiled forty times [south plane]. Six large cylinder boilers which are thirty four [McComb in 1901 says “35 inches”] inches in diameter, and fifty feet long, furnish steam for the pair of one hundred and fifty horse power, high-pressure engines which connect with the drum [McComb, 1901: “with the drum by spur and pinion wheels”] and hoist the cars. While on duty, the engineer occupies a platform nearly ten feet above the bed plates of his engine, and has the whole of the gearing under his eye when he chooses to look at it. From this position he gets a view of the cars at the foot, and he can see them before they reach the angle at the top of the plane. He also has a full view of them until after they are detached, providing the headman unhooks right-handed. [emphasis added] Five cars at a time are drawn up the plane. / A chain about six feet long, made from three fourth inch round iron, having a large hook at each end, and weighing about forty-five pounds, is used to attach the cars to the cable. This chain is called a sling. There are nearly one thousand slings in use on the road. Four large wrought-iron links connected together are inserted in the cable, both at the head and foot of the plane. This combination of links is called ‘the cone.’ When coal is being hoisted, a man at the foot of the plane places one of the hooks of the sling in a link [McComb, 1901: “. . . in a link attached to the cross-sill of the car at the head of the trip”] which is in the end of the car. By pulling a wire which traverses the length of the plane, he rings a signal-bell in the engine house. The engineer starts his engine slowly and the cable begins to unwind on one side of the drum and to wind up on the other. As the cone at the foot of the plane moves from under the forward end of the front car, the footman inserts the other hook of the sling into one of the links of the cone. As soon as the chain stretches taut and the cars are straightened out, their weight will stop the engine for an instant. [McComb, 1901: “. . . for an instant, and the balance box on the tension cable would take up the slack in the cable to which the trip was attached.”] This [momentary] stop indicates to the engineer that the trip is hooked on; he gradually pulls the valve wide open, and, in less than one minute, he sees the top rail of the forward car looming into view at the trip nears the angle at the head of the plane. The sight of the cars is his signal to gradually shut off steam. As the forward car reaches the angle, a man, who has taken position on a slight elevation placed there for that purpose, jumps on the front truck, steps on the bumper, takes a firm hold of the top rail of the car with his left hand, reaches down and grasps the hook of the sling firmly with his right hand [emphasis added]. By this time the engine and cable have stopped. Sufficient slack is given for a moment and the headman, taking advantage of it, disconnects the hook from the cone. Standing erect he gives the sling a dexterous jerk, and, by lifting his arm at the same time, the lower end is made to querl up like a snake. This movement causes the sling to land on the top of the car, and the hook farthest from his hand to hang over the side, ready for the footman to grasp when the cars reach the foot of the next plane. About the same time that the headman mounts the forward car, one of the runners jumps on some one of the cars in the trip and applies the compound-lever brake by which the trip is to be stopped a short distance from the head, and there connected with other trips which go to make up a train. These trains are from time to time, run over the trestling, which crosses the town, and stopped at the foot of No. 1, from whence they ascend the mountain by a series of eight more inclined planes. They then descend by four planes to Waymart, from whence they traverse the ‘ten-mile level’ to Honesdale, sixteen miles away. The cars travel about one hundred feet while the headman performs his

work as described above, and, if nothing hinders him, not more than half a minute passes from the time he steps on the car until he steps off again. / Much agility and dexterity are required to do this work, for the cars run at the rate of twenty miles an hour. When they are working full time on the road this operation is repeated over four hundred times a day. [In 1901 McComb says 500 times a day.] As soon as the engineer sees the sling disconnected from the cone he reverses his engine and starts it again without any signal from the foot, and another trip is on its way up the plane before the headman has fairly dismounted from the car. Coal is operated in this manner the year round, and, be the weather wet or dry, warm or cold; or, be the footing on the cars firm or slippery, the same process must be adhered to. The men on the gravity road work from 6:30 A.M. until the complement of coal is run over the line, and no stop is made for meals. During last week they worked as late as 10:30 P.M. In the middle of the day when the runners on the head want refreshments, one man at a time leaves the work. Gilmartin went to his dinner at 11 A.M. and returned about 12 P.M. The weather on that day was biting cold. / The men on the head are provided with a small shanty on the left side of the track [emphasis added], and in that shanty, on Friday, was kept burning a cheerful fire. To enjoy the warmth of that fire as much as possible and yet perform their duty was the study of the men. / Those who acted as headmen conceived the idea that to unhook left-handed would enable them to be nearer the stove for a longer time, as they would not have to cross the track at all. They acted on that idea; it seemed to work quite as well, but the engineer could not see them when they got off the cars. / Engineer Davies had gone to dinner. Assistant Engineer John McCawley, a tried and trusty man of many years experience, was on duty. / Gilmartin was unhooking left-handed [emphasis added], but instead of twirling the sling up on top of the car, he would throw it outside on the planking, and, after having stepped down, would hang it on one of the cleats on the side of the car. He worked it in that manner for about one and one-half hours after having returned from his dinner, when the accident occurred. A trip came over the head, Gilmartin mounted the forward end and Richard Keating stepped on the brake which was on the rear car. Gilmartin loosened the sling from both the car and the cone, but in trying to get it out, the lower hook fastened in the cone again, and, in an instant, the sling was jerked out of his hand. The hook that he held caught in his left boot top and he was drawn under the moving cars. The engineer had seen him disengage the sling, and, thinking that all was right, he had reversed the engine and was watching the gearing as is the custom. When the runner saw Gilmartin fall he instantly put down the brake. The cars were stopped before they had travelled the length of the trip. During this time the engineer had begun to hoist more coal and before Keating could get to the bell-wire he was horrified to see his fellow-workman drawn by the sling, from under the hind car of the trip, one hook being in the cone and the other in his left boot. When Keating reached Gilmartin he found him lying on his back on top of the wire cables, which are about eight inches apart. His body was parallel to them and they were moving slowly in opposite directions. The engineer was stopped as soon as possible but the poor fellow had been dragged at least twenty yards. He emerged from under the cars feet foremost. His left leg was found to be broken in two places below the knee, and his right leg crushed nearly off, several wheels having passed over it midway between the ankle and the knee. He was carried into the shanty, doctors were soon in attendance, and all that could be done to make him comfortable was done. A conveyance was soon procured, kind friends lifted

him carefully into it and he was taken to his home on Shanty Hill. But what a cloud had enveloped that home since noon! A wife threatened with widowhood and two little girls with orphanage. The strong, healthy, robust, temperate father at the age of 29 years laid low, and all his bright hopes of prosperity dispelled by a blow that came so sharp and sudden that the keenest anguish was felt when a realization of his wretched condition dawned on his mind. To have seen the unfortunate man lying there on that bed, surrounded by his friends who were powerless to alleviate his suffering—would have excited pity in the breast of any one susceptible to that emotion. To have seen the wife of that man, in her great trial, so heroically bear up against her loss, would have been to admire her fortitude. Scarcely one woman in a thousand would have acted with passive courage, and without a noisy exhibition of grief. She endured her great affliction with a calmness that is seldom equalled by those of superior will power. No person could have listened to the husband and wife when they discussed the probably fatal consequences of the accident without being touched with sympathy for them. To have seen how bravely they parted from each other, later in the afternoon, when the doctors came to take off the useless leg would have been a valuable lesson in life. About 4:30 P.M., Doctors Burnett, Wheeler and Gillis, prepared to amputate. The injured man was placed on a cot provided for that purpose, and when all things were ready the surgical operation was performed by Dr. Burnett, assisted by Drs. Wheeler and Gillis. The right leg was taken off below the knee. The broken leg was placed in a fracture box, and the patient as well cared for as possible. / Accidents are of rare occurrence among the employees on the gravity road, and it has been nearly eight years since one of a serious nature has happened on Davies's Head. No person is to blame for this one and no damage occurred to the works when it happened. / Michael F. Gilmartin is the son of Bernard Gilmartin of our city. He had worked on Davies's Head since April, 1880. He was willing and obliging; he understood his business and was faithful to his duty. He was 29 years of age on January 31, 1881 and had never taken a drink of liquor up to Friday afternoon of last week at which time a stimulant was given him by the doctors. / John McComb."

Wife of Elias Thomas dies:

"Mrs. Elias Thomas, wife of Mr. Thomas, watchman at Davis' head, died suddenly on Thursday morning. Though apparently in strong health, with a vigorous constitution, she had been for some time an invalid, suffering from Bright's disease of the kidneys. Her trouble took an acute form with the sad result mentioned. The deceased leaves a husband, son, and several daughters, who mourn their loss." (*Carbondale Leader*, December 16, 1881, p. 4)

1882: Sandy's Field and Davis' Plane:

"A matched game of base ball was played between the Alert Jr., of Belmont street, and the Brooklyn club, on Thursday, May 4th. The game came off on the ground known as "Sandy's field," on the bank above Davis' plane. The score was as follows: Alert Jr., 6; Brooklyn 5." (*Carbondale Advance*, May 6, 1882, p. 3)

New chimes at 28:

"The new chimes at 28 don't ring out worth a cent." (*Carbondale Leader*, October 5, 1883, p. 2)

Fatal accident at No. 28 in which Fred. Schraeder was killed:

"FATAL ACCIDENT AT NO. 28 HEAD. / A call for help from Davies' engine house on the gravity road, about three o'clock yesterday afternoon, brought a gang of men and the ambulance belonging to the D. & H. C. Co. to that place. It was found that Fred. Schraeder, a headman, whose duty it was to unhook the chains from the cars at the head of the plane, had fallen under the first car and had been crushed to death. His death had been instantaneous. His remains were taken to the undertaking establishment of J. F. Kinback where they were properly dressed for burial, and thence to his home on Canaan street. The funeral will be held at 4 p.m. to-day." (*Carbondale Leader*, June 5, 1885, p. 1)

New Boiler House at 28:

"The Waymart carpenters, under foreman Case, are building a new boiler house at No. 28." (*Carbondale Leader*, October 22, 1887, p. 4)

William Rounds accident, 1892:

"HIS EYE JABBED OUT. / A Vicious Act by an Excursionist Cost William Rounds an Optic. / William Rounds, a railroad man living at No. 24 South Church street, was the victim of a very serious accident last evening which may cost him the loss of an eye. Rounds is flagman on a Delaware & Hudson coal train and last evening he was riding in the caboose window as the train passed the Seventh avenue station about seven o'clock. At the same time a valley excursion train stood on the next rack ready to start with its load. As the coal caboose passed the passenger train some fellow on board, probably made reckless by liquor drunk during the day, jabbed his cane at the form he saw in the window and the result was fearful. The iron end of the walking stick struck Rounds in the 'corner' of his right eye with force sufficient to drive it into the socket

fully an inch, making a hole that resembled a bullet wound and rupturing a blood vessel in the eye that quickly filled the ball and caused it to swell up to nearly double its size. / The injured man was taken as quickly as possible to the office of Dr. Bailey. He suffered intensely and the physician found it a hard matter to treat the wound because of its location and peculiar nature. He did what he could, however, and today Mr. Rounds is somewhat relieved of the suffering, though the doctor fears that the sight of the eye has been permanently lost by the cruel excursionist. / There is no clue to the perpetrator of the deed.” (*Carbondale Leader*, July 23, 1892, p. 4)

Call for help at Plane No. 28:

“The blasts that emanated from the big gong at Gravity plane No. 28 on Sunday evening disturbed a good many people around town and they were at a loss to tell what they meant. The toots were different from those usually given at times of fire and yet it was believed they could mean nothing else—being given at that time of night. The blasts were two in number, repeated on several occasions and were intended as a call for one of the employees whose help was needed at the engine house at once.” (*Carbondale Leader*, January 4, 1898, p. 4)

Gravity cars burned at Foot of Back Plane No. 28:

Last Gravity Cars Burned: “The old gravity cars are now a thing of the past, as the last of them was burned last evening, at the foot of back plane No. 28.” (clipping in Gritman scrapbook, dated Thursday, February 22, 1900)

5941

Waterwheels in Carbondale and Archbald

When installed, initially, Plane No. 28 in Carbondale was powered by a waterwheel. On Planes Nos. 1, 14, 15, 16, 17 and 21, as well, there were waterwheels at one point in the history of those planes. Let's take a look now at the waterwheels on the D&H Gravity Railroad in Carbondale and Archbald. In so doing, we will describe Plane No. 28 before 1859.

The question of waterwheels and waterpower on the Gravity Railroad in downtown Carbondale was raised initially in 1902 when, following the close of the Gravity Railroad and the removal, by the D&H bridge builders, of the "highworks" (Level No. 28 between the head of Plane No. 28 and the foot of Plane No. 1), workers discovered, as they were removing the abutments which supported those highworks and formed a wall for the embankment of culm, a giant waterwheel that had been buried on the site where the D&H coal pockets at the foot of Salem Avenue would at that time be erected.

The discovery of this buried water wheel resulted in eight articles in Carbondale newspapers about the buried water wheel. These eight clippings were grouped together in one of the Gritman scrapbooks in the collection of the Carbondale Historical Society.

Here are those eight clippings from the Gritman scrapbook:

(1) *Carbondale Leader*, January 29, 1902:

“WORKMEN UNEARTH OLD WATERWHEEL. / *No One Found Who Can Tell of Its Use—The D. & H. Improvements on River Street.* / The Delaware & Hudson gang of bridge builders have completed the job of removing the trestling which spanned Dundaff street at the foot of Salem avenue, and workmen are now engaged in tearing down the heavy abutments which supported the bridge and formed a wall for the embankment of culm. / In excavating for the foundation of the massive coal storage tank which is to be erected the workmen unearthed an old water wheel of very large proportions. It is made of oak and pine and the lumber in the wheel and framework were found to be in an excellent state of preservation notwithstanding the many years they have practically been immersed for the wheel was found below the level of the river bed and the earth thereabouts is thoroughly saturated with water. / So far no one has been found who knows anything about the water wheel. None of those who have seen it so far have the least recollection of what it was used for. / The work on the improvements being made there is progressing very rapidly. The foundation for the new tank is well under way. Owing to the condition of the soil, the pumps have to be kept going night and day to keep the hole clear from water. / The company is also making extensive changes west of the railroad. The old canal bank has been cut down and a strip of land extending from the Hendrick oil works to the city station has been graded for tracks. This will be used as additional yard room, of which the company is badly in need. / The residents of that vicinity were in hopes that the company would also remove the embankment between Dundaff street and the river on Salem avenue. From the outlook this will not be done at once, but it is said other important changes are to be made this summer which will greatly improve that section.” (*Leader*, January 29, 1902)

What have we learned:

- The water wheel, made of oak and pine, was very large. The wheel was below the level of the Lackawanna River and, being saturated with water, was well preserved.
- No one has been found who knows anything about the water wheel. None of those who have seen it so far have the least recollection of what it was used for.
- The D&H is making extensive changes west of the railroad. The old canal bank has been cut down and a strip of land extending from the Hendrick oil works to the city station has been graded for tracks. This will be used as additional yard room, of which the company is badly in need.

(2) *Carbondale Leader*, January 31, 1902:

"I think I can account for the old water wheel found in the excavation at the foot of Salem avenue. It is undoubtedly the wheel that was used for some time in the early fifties to draw the cars up the slope in what was called the 'new' mine that was located near that point."—A Gillies, Sr. (*Leader*, Friday, January 31, 1902)

What have we learned:

- Alexander Gillies, Sr. reports that the old water wheel "is undoubtedly the wheel that was used for some time in the early fifties [the 1850s] to draw the cars up the slope in what was called the 'new' mine that was located near that point."

(3) *Carbondale Leader*, February 1, 1902:

"The interview with Alexander Gillies, Sr., in yesterday's *Leader* concerning the old water wheel which was unearthed at the foot of Salem avenue, has brought out other suggestions as to what the wheel might have been originally used for. A lady whose recollection runs well back into the forties said today that it might be the wheel put up by the Delaware & Hudson in the early days to draw the cars up No. 1 plane. It was a mammoth wheel that made a great noise when it revolved and as its operation was not steady it was soon abandoned. It was to run this wheel that the reservoir on what was known as No. 1 hill was erected." (*Leader*, February 1, 1902)

What have we learned:

- Alexander Gillies's suggestions as to the original use of the buried water wheel in the 1850s causes a lady to think back to the 1840s when, said she, the wheel "might be the wheel put up by the Delaware & Hudson in the early days to draw the cars up No. 1 plane. It was a mammoth wheel that made a great noise when it revolved and as its operation was not steady it was soon abandoned. It was to run this wheel that the reservoir on what was known as No. 1 hill was erected."

(4) *Carbondale Leader*: February 1, 1902:

"The cars were never drawn up No. 1 plane by water power according to my recollection; and that goes back to a very early period. Whitman Brown was the engineer at the head of that plane as early as 1833." C. E. Lathrop (*Leader*, February 1, 1902)

What have we learned:

- C. E. Lathrop reports that "the cars were never drawn up No. 1 plane by water power."
- Whitman Brown was the engineer at the head of Plane No. 1 as early as 1833.

(5) *Carbondale Leader*, February 5, 1902:

"ONE-MINUTE INTERVIEWS.

"I see by the One-Minute Interviews that no water wheel was used to draw cars on the Gravity. My recollection is that one was used to draw cars up No. 1 plane about the year 1850. It did not give good satisfaction and was in use for but a short time. One of the principal reasons the reservoir was constructed was to furnish water for this wheel, which, if I remember rightly, was nearly seventy feet in diameter." T. B. Vannan. (*Leader*, Wednesday, February 5, 1902)

What have we learned:

- T. B. Vannan reports that a water wheel was used to draw cars up Plane No. 1 in about 1850. The wheel "did not give good satisfaction and was in use for but a short time. One of the principal reasons the reservoir was constructed was to furnish water for this wheel, which, if I remember rightly, was nearly seventy feet in diameter."

(6) *Carbondale Leader*, February 5, 1902:

"I remember the old water wheel that used to be at No. 1 plane and was inquiring about it when in Carbondale in September." James Archbald, Scranton." (*Leader*, Wednesday, February 5, 1902)

What have we learned:

- James Archbald, writing from Scranton to the *Carbondale Leader*, remembered the old water wheel that used to be at No. 1 plane and "was inquiring about it when in Carbondale in September."

(7) *Carbondale Leader*, February 8, 1902

“A BUILDER SPEAKS ABOUT THE WHEELS. / William Johnson, Sr., Gives a Full History of the Water Wheels in Use on the Old Gravity. / The discussion about the old Gravity railroad water wheels which has been going on in the *Leader* several days as a result of the discovery of the old wheel pit on the plot at the foot of Salem avenue, has caused no little interest among the older residents of the town and has started afresh the stream of reminiscences. In the discussion so far there seems to have been a considerable degree of uncertainty as to the exact location of the wheels and also their number and the years in which they were in use. For this reason the *Leader* takes great pleasure in presenting to its readers today the views of William Johnson, Sr., of Washington place, on the question. As he was one of the men engaged in erecting the wheels under special discussion he is a well qualified authority on the matter. Mr. Johnson entered the employ of the Delaware & Hudson company in the spring of 1844 and having been with them constantly since is, perhaps, better qualified than any other man to recount the changes which have taken place on the Gravity road since then. /Mr. Johnson states that there were two water wheels located on the plot where the coal pockets are to stand. They were constructed in 1853 and were made necessary by the construction of two planes where formerly there was but one. The first water wheel in use on the old gravity was located near the head of the old No. 28 plane. At first it did its work very well but later, when the business had largely increased, it was decided to divide this plane and another wheel was constructed at the new head of the old plane which stood near the present Mills & Baker property. This change was made in the year 1853, Charles P. Wurts was at that time superintendent of the company, he having come here in 1851. James Dickson was master mechanic and William Ball, then superintendent of machinery, had charge of the work of constructing the wheels. / Previous to 1853 there was a level extending from the head of the old No. 28 plane to the foot of No. 1. Across this the cars were pulled by horses. The head of No. 28 was then some feet lower than it now is and the foot of No. 1 somewhat higher. On the plot at the foot of Salem avenue was a fine spring to which people went from all sections for water. John W. Aitken, father of the present John Aitken, at one time made a pond there and put over a thousand trout in it, but the boys soon caught these. In 1853 when the change was made the head of the second plane was near where the present local coal pockets stand, midway between No. 28 and No. 1 planes. To pull the cars up this plane a water wheel was constructed at its foot, where the old wheel pit was recently discovered. This wheel was fifteen feet in diameter and ten feet abreast and was made of heavy oak and pine. It was run with an overshot current taken from the Lackawanna river. There was plenty of water but a sufficient fall could not be obtained so a second wheel, slightly smaller, was constructed and geared to the first one. There was more than enough water in the current to fill the buckets of the big wheel and the surplus was used to run the second one. In this way plenty of power was secured to whisk the cars up the plane at a lively rate. The same stream was used to run a third wheel located about 300 feet north of the two mentioned. This was used to draw the coal cars up from the old mine, the opening to which may still be seen in the base of the

west side bluff. / The cars were drawn up No. 1 plane originally by a big upright stationery engine. In 1845 this was displaced by a pair of horizontal engines. In the same year a fifty foot water wheel was constructed. It was used only in the spring and fall when there was lots of water, which was taken from the old Durfee saw mill pond. This wheel did not last very long, as in the dry seasons when it was not in use it would dry out and soon feel to pieces. It was, however, a very powerful wheel when there was sufficient water for power. The wheel at the Mills & Baker property was run by Patrick Lunney, of South Main street; those at the foot of the second plane by the late Hugh Gillen and the one at No. 1 plane by the late Eulis Campbell. In 1856 Mr. Wurts made other extensive changes. Instead of five planes as formerly eight were used and the level stretches between were graded so as to do away with the use of horses. Before that time, also, both light and loaded planes had to be used at the one time, the loaded cars being hoisted by power while the empty ones carried the tail rope to the foot. In this year the endless wire ropes were substituted for the old hempen ones. / In 1858 the route of the mountain road was again changed and new engines were put in use. In 1859 the water wheels in this city were abandoned and a pair of the engines displaced by the changes on the mountain road in the year previous were utilized for power on No. 28 plane. The short plane between No. 28 and No. 1 was done away with and a trestling constructed across the town between the two. Shortly after the 'high works' were erected some gravel cars broke through and fell down upon Dundaff street. Henry Peck was buried in the debris and, although he was not rescued for a considerable time, he escaped serious injury. In 1864 the light track was changed to the route followed in more recent years. When the old highworks were filled in and the new trestling was constructed—as seen by the present generation—the wheel pit was covered with the gravel, and thus hidden, was forgotten until its recent discovery by the workmen engaged on the new coal yard. / Mr. Johnson also tells some interesting tales of the early days of the town. Among other things he helped to construct was the first breaker in the city, and, indeed, on this side of the Moosic. Previous to 1851, all of the coal dug in the Delaware & Hudson mines was taken to Honesdale where it was prepared for market in the company's crude and only breaker. In that year, however, the apparatus was moved to this city and a new breaker erected on the plot where the present local coal pockets now stand. The only process the coal was put through was to crush it between rollers—of which there were three sets in the breaker—and only a small portion of the quantity mined was subjected to this treatment, as most of it was sent to the market as mined, that is in lump form. These crushers did not break it in the clean manner the modern rollers do and from the coal thus treated there was a very large percentage of culm and pieces too small for sale in those days. In this way much of what would now be considered excellent fuel was lost. / An idea of the early output of the company may be gained from the amount of traffic on the Gravity. In the year in which Mr. Johnson went to work for the company, 1844, a day's quota on the Gravity consisted of eighty-three trips of four cars to a trip each car having a capacity of three tons. In other words 996 tons of coal were hauled over the road in a day and this was the entire output of the company's mines. In order to accomplish even this the road had to work from early morning till late at night. Since then output has increased enormously each succeeding year until recently and the railway facilities have been improved accordingly. To the old timers who were connected with the company or watched its early development the many changes on the road have been a matter of no small interest." (*Carbondale Leader*, Saturday, February 8, 1902)

What have we learned:

- William Johnson, of Washington Place, Carbondale, contacts the *Leader* to state that he was one of the men who installed the water wheels in question and is therefore a well qualified authority on the matter. William Johnson began working for the D&H in 1844 and is still working for the D&H.
- "Mr. Johnson states that there were two water wheels located on the plot where the coal pockets are to stand. They were constructed in 1853 and were made necessary by the construction of two planes where formerly there was but one."
- WJ: "The first water wheel in use on the old gravity was located near the head of the old No. 28 plane. At first it did its work very well but later, when the business had largely increased, it was decided to divide this plane and another wheel was constructed at the new head of the old plane which stood near the present Mills & Baker property. This change was made in the year 1853, Charles P. Wurts was at that time superintendent of the company, he having come here in 1851. James Dickson was master mechanic and William Ball, then superintendent of machinery, had charge of the work of constructing the wheels."
- WJ: "Previous to 1853 there was a level extending from the head of the old No. 28 plane to the foot of No. 1. Across this the cars were pulled by horses. The head of No. 28 was then some feet lower than it now is and the foot of No. 1 somewhat higher. On the plot at the foot of Salem avenue was a fine spring to which people went from all sections for water. John W. Aitken, father of the present John Aitken, at one time made a pond there and put over a thousand trout in it, but the boys soon caught these. In 1853 when the change was made the head of the second plane was near where the present local coal pockets stand, midway between No. 28 and No. 1 planes. To pull the cars up this plane a water wheel was constructed at its foot, where the old wheel pit was recently discovered. This wheel was fifteen feet in diameter and ten feet abreast and was made of heavy oak and pine. It was run with an overshot current taken from the Lackawanna river. There was plenty of water but a sufficient fall could not be obtained so a second wheel, slightly smaller, was constructed and geared to the first one. There was more than enough water in the current to fill the buckets of the big wheel and the surplus was used to run the second one. In this way plenty of power was secured to whisk the cars up the plane at a lively rate. The same stream was used to run a third wheel located about 300 feet north of the two mentioned. This was used to draw the coal cars up from the old mine, the opening to which may still be seen in the base of the west side bluff."

- WJ: "The cars were drawn up No. 1 plane originally by a big upright stationery engine. In 1845 this was displaced by a pair of horizontal engines. In the same year a fifty foot water wheel was constructed. It was used only in the spring and fall when there was lots of water, which was taken from the old Durfee saw mill pond. This wheel did not last very long, as in the dry seasons when it was not in use it would dry out and soon feel to pieces. It was, however, a very powerful wheel when there was sufficient water for power."
- WJ: "The wheel at the Mills & Baker property was run by Patrick Lunney, of South Main street; those at the foot of the second plane by the late Hugh Gillen and the one at No. 1 plane by the late Eulis Campbell."
- WJ: "In 1859 the water wheels in this city were abandoned and a pair of the engines displaced by the changes on the mountain road in the year previous were utilized for power on No. 28 plane. The short plane between No. 28 and No. 1 was done away with and a trestling constructed across the town between the two."
- WJ: "When the old highworks were filled in and the new trestling was constructed—as seen by the present generation—the wheel pit was covered with the gravel, and thus hidden, was forgotten until its recent discovery by the workmen engaged on the new coal yard."
- William Johnson helped to construct "the first breaker in the city, and, indeed, on this side of the Moosic. Previous to 1851, all of the coal dug in the Delaware & Hudson mines was taken to Honesdale where it was prepared for market in the company's crude and only breaker. In that year, however, the apparatus was moved to this city and a new breaker erected on the plot where the present local coal pockets now stand. The only process the coal was put through was to crush it between rollers—of which there were three sets in the breaker—and only a small portion of the quantity mined was subjected to this treatment, as most of it was sent to the market as mined, that is in lump form. These crushers did not break it in the clean manner the modern rollers do and from the coal thus treated there was a very large percentage of culm and pieces too small for sale in those days. In this way much of what would now be considered excellent fuel was lost."
- William Johnson reported that in 1844, the year in which he went to work for the D&H, "a day's quota on the Gravity consisted of eighty-three trips of four cars to a trip each car having a capacity of three tons. In other words 996 tons of coal were hauled over the road in a day and this was the entire output of the company's mines. In order to accomplish even this the road had to work from early morning till late at night."

(8) *Carbondale Leader*, February 13, 1902

"Say, reported, did you ever hear what became of that old No. 1 water wheel that you've been telling us so much about?" asked J. M. Alexander of a *Leader* man. The newsgatherer professed ignorance and inquired what Mr. Alexander knew of the wheel. "Well," he said, "I have a book case the material of which was a part of that wheel. It is made of good heavy oak and I think a great deal of it now. When Charles Wurts was going to leave town, I thought perhaps he might not want to take the case along, it was so heavy. That was about 1866, I had quite a number of books on hand and I asked Gus. Wurts to go to his uncle and see if he couldn't get the bookcase. He succeeded in doing so for \$25, which I gladly gave, and the bookcase has been in my possession since." (*Carbondale Leader*, Thursday, February 13, 1902)

What have we learned:

- J. M. Alexander reported that he owned a book case that was made out of part of the waterwheel that used to stand at the head of Plane No. 1. "It is made of good heavy oak and I think a great deal of it now. When Charles Wurts was going to leave town, I thought perhaps he might not want to take the case along, it was so heavy. That was about 1866, I had quite a number of books on hand and I asked Gus. Wurts to go to his uncle and see if he couldn't get the bookcase. He succeeded in doing so for \$25, which I gladly gave, and the bookcase has been in my possession since."

From that amazing sequence of articles we have learned facts that are in print nowhere else, facts which have enriched our understanding of the railroad and mining operations of the D&H in Carbondale in the 1840s, 1850s, and 1860s. On the question of waterpower and waterwheels we have learned a great deal.

WATERWHEEL ON PLANE NO. 1:

When the Gravity Railroad opened in 1829, there was a large upright stationary steam engine at the head of Plane No. 1. In 1845 that upright engine was replaced by a pair of horizontal engines and a fifty-foot water wheel, which was operated Eulis Campbell. This wheel was used only in the spring and fall of the year when there was an abundant supply of water available to power the wheel. This water was taken from the former Durfee saw mill pond on Canaan Street. James Archbald, writing to the *Carbondale Leader* in February 1902, remembered this water wheel at the head of Plane No. 1.

William Johnson: "The cars were drawn up No. 1 plane originally [1829] by a big upright stationary engine. In 1845 this was displaced by a pair of horizontal engines. In the same year a fifty foot water wheel was constructed. It was used only in the spring and fall when there was

lots of water, which was taken from the old Durfee saw mill pond. This wheel did not last very long, as in the dry seasons when it was not in use it would dry out and soon feel to pieces. It was, however, a very powerful wheel when there was sufficient water for power."

T. B. Vannan reports that a water wheel was used to draw cars up Plane No. 1 in about 1850. The wheel "did not give good satisfaction and was in use for but a short time. One of the principal reasons the reservoir was constructed was to furnish water for this wheel, which, if I remember rightly, was nearly seventy feet in diameter." T. B. Vannan remembered that the water wheel on Plane No. 1 was "nearly seventy feet in diameter." William Johnson says the wheel was a fifty foot wheel. Given Johnson's first hand experience, it is safe to say that the wheel was a fifty-foot wheel. Vannan is not correct when he says that the reservoir was constructed to furnish water for this wheel. William Johnson reports that that reservoir was the former Durfee saw mill pond (which may well have been enlarged by the D&H).

C. E. Lathrop's recollection that there was never water power on Plane No. 1 is not correct. His recollection that Whitman Brown was the engineer at the head of Plane No. 1 as early as 1833 is a valuable addition to this historical record of the plane. William Johnson reported that it was Eulis Cambell who operated the waterwheel at the head of Plane No. 1.

That there was a water wheel at the head of Plane No. 1 was recalled by the lady who contacted the *Carbondale Leader* in response to Alexander Gillie's recollection about water wheels. That lady, whose recollection ran well back into the 1840s, reported that the wheel that was unearthed at the foot of Salem Avenue "might be the wheel put up by the Delaware & Hudson in the early days to draw the cars up No. 1 plane. It was a mammoth wheel that made a great noise when it revolved and as its operation was not steady it was soon abandoned. It was to run this wheel that the reservoir on what was known as No. 1 hill was erected." Yes. Interesting new facts about the wheel: it made a great noise when it revolved, its operation was not steady and it was soon abandoned. No, the reservoir on No. 1 hill not erected to run this wheel. That reservoir was formerly the Durfee saw mill pond (which may well have been enlarged by the D&H).

When the water wheel at the head of Plane No. 1 was no longer used, part of that wheel was used to make a book case that was owned by J. J. Alexander in 1902. About the bookcase, J. M. Alexander reported: "It is made of good heavy oak and I think a great deal of it now. When Charles Wurts was going to leave town, I thought perhaps he might not want to take the case along, it was so heavy. That was about 1866, I had quite a number of books on hand and I asked Gus. Wurts to go to his uncle and see if he couldn't get the bookcase. He succeeded in doing so for \$25, which I gladly gave, and the bookcase has been in my possession since."

Note on Plane No. 1:

In a substantial article in the June and July issues of *The Delaware and Hudson Railroad Bulletin*, N. H. Hiller, Jr. says:

"At the foot of old Number One plane, records show that a fifty foot undershot water wheel was used for the first eighteen years [up to 1847] of the road's operation." (p. 181), ("Up Hill and Down Dale by Gravity Rail" by N. H. Hiller, Jr. (*The Delaware and Hudson Railroad Bulletin*, June 15, 1931, p. 181-182, 188-189); this article was concluded in the July 1, 1931 issue on pp. 196-198.

As far as we have been able to determine, there was never a 50-foot undershot water wheel at the foot of old Number One plane. One can't help but wonder what "records" was consulting when he learned of the existence of this waterwheel at the foot of No. 1 plane.

Given below is a detail from the map on page 12 in *D&H Deeds Luzerne I*. The map illustrates a deed, pp. 1-6, dated July 28, 1825, between John Wurtz & others, Trustees, and The Delaware & Hudson Canal Company. On this map, which contains details about several configurations of the Gravity Railroad, the location of the waterwheel at the head of Plane No. 1 is show. Here is that detail:

The water for the steam engine, from 1829 on, as well as the water to power the waterwheel that was installed here in 1845, came from the D&H reservoir at the top of Cannan Street. That reservoir was formerly the Durfee saw mill pond.

Note also that the excess water that flowed into the engine house flowed downgrade to re-join the Racket Brook at the bottom of the ravine.

Head of Plane No. 1, 1829: upright stationary steam engine in 1829, replaced in 1845 by a pair of horizontal steam engines and a 50-foot waterwheel. This waterwheel, said William Johnson, "did not last very long."

The source of the Racket Brook was No. 4 Pond

Foot of Plane No. 1, from 1829 on

Present-day Lincoln Avenue

Level from the head of the plane from the mines to the foot of Plane No. 1

Water wheel that hoisted the cars from the mines nearly 80 feet in height. Once thus elevated, the cars rolled down the level to the foot of Plane No. 1.

Present-day Salem Avenue

The Parade encompassed the entire area now occupied by Memorial Park and City Hall/the Library.

The canal that flowed through downtown Carbondale



In addition to the water wheel on Plane No. 1 (1845), there were also water wheels on Plane No. 28 in downtown Carbondale (1853-1859).

Before we look at the water wheels that were used on that plane, it is important that we learn about the source of the water that powered those wheels, as well as the waterwheel that powered the plane from the mines shown on the preceding page and several other wheels in downtown Carbondale (the three waterwheels on Plane No. 28, the wheel at the Carbondale Planing Mill, the wheel at the Mills & Baker property on South Main street; and no less than 3 D&H pump houses). That water source was the Carbondale Canal.

THE CARBONDALE CANAL:

Given below are two details from the 1873 *D. G. Beers Luzerne County* map. Thereon we see the path of the Carbondale Canal through downtown Carbondale. This map was published in 1873, by which time all of the D&H waterwheels in downtown Carbondale had either been eliminated or replaced by stationary steam engines and are not, therefore, shown on this map. We show this map to orient the reader as to the locations of those waterwheels in the period 1853-1859.

In the first detail from that map, we see the Carbondale Canal, flowing North-South between the D&H steam line tracks and the D&H Gravity Railroad tracks. On its southward journey, the Canal provided water for waterwheels in several locations.

Final section of the raceway
from the Fallbrook Creek to
the Carbondale Canal

Raceway from the
Lackawanna River to
the Carbondale Canal

Carbondale
Canal,
between
Gravity track
(left) and
D&H steam
line track
(right)

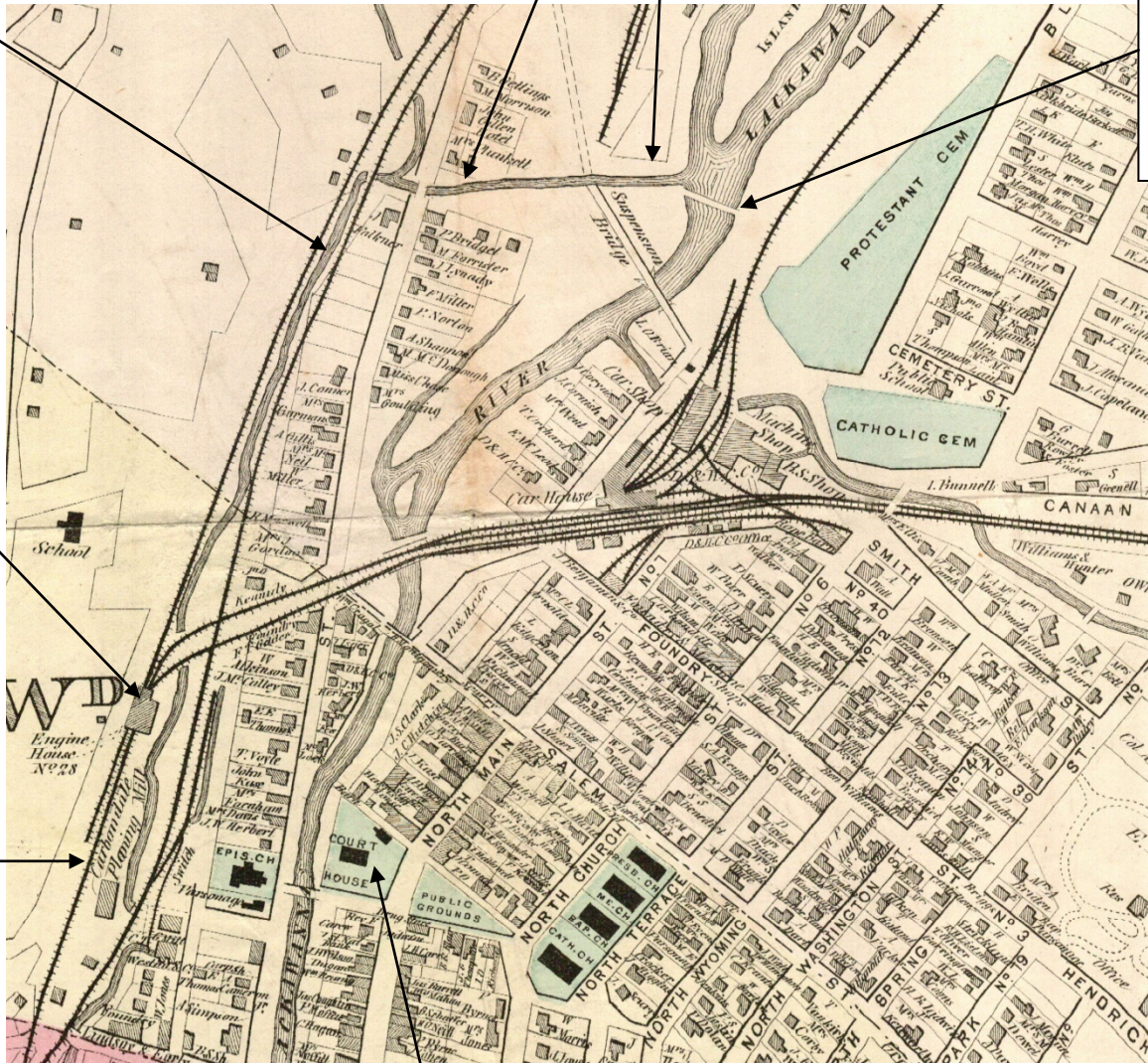
Dam on
Lackawanna
River to force
water into the
Carbondale
Canal

"Engine House No. 28" in 1873, when this map was drawn. The water wheels that powered this plane, beginning in 1853, were replaced by a stationary steam engine in 1859.

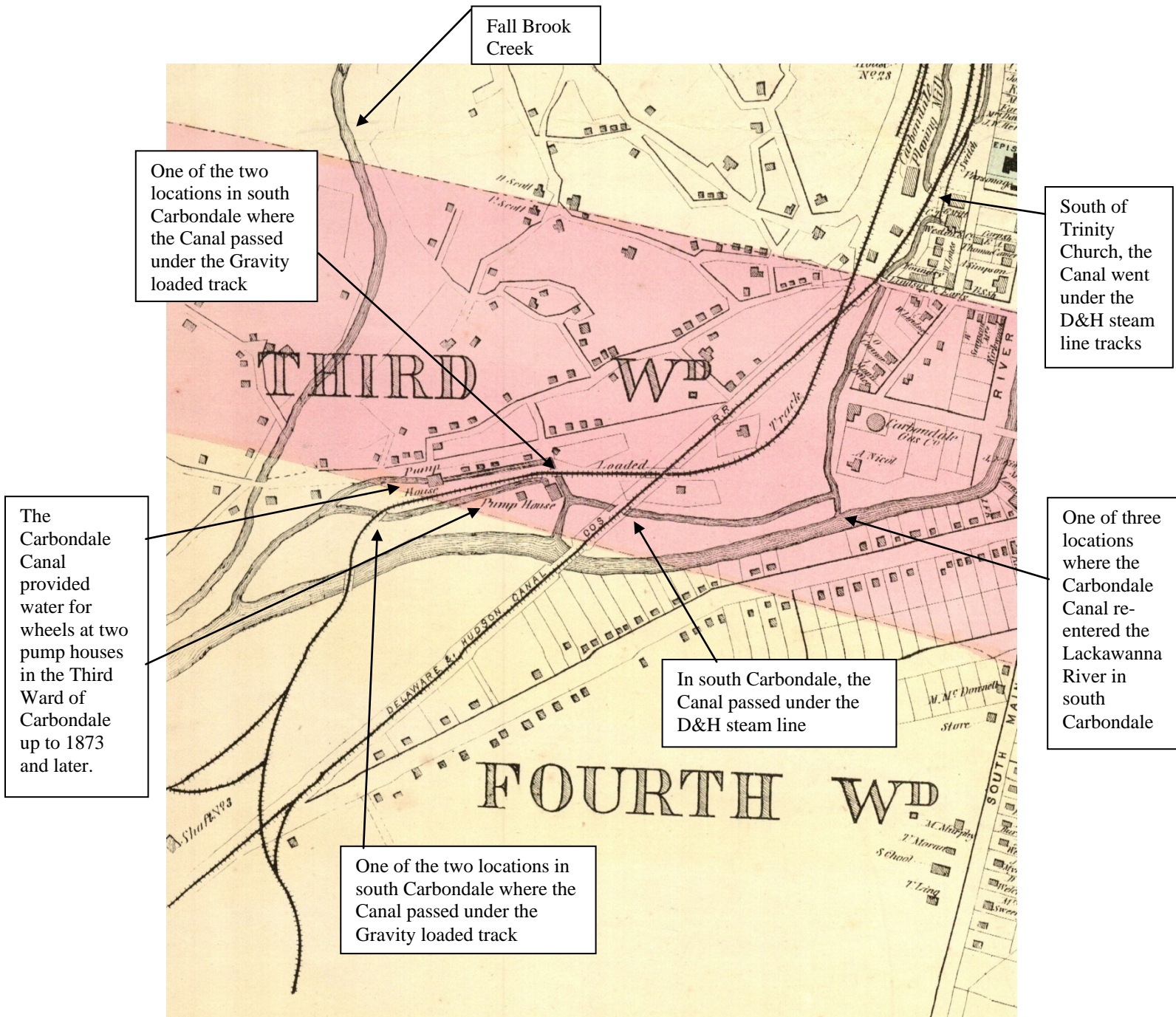
The
Carbondale
Canal
provided
water for
wheel at
Carbondale
Planing Mill

Lackawanna
River

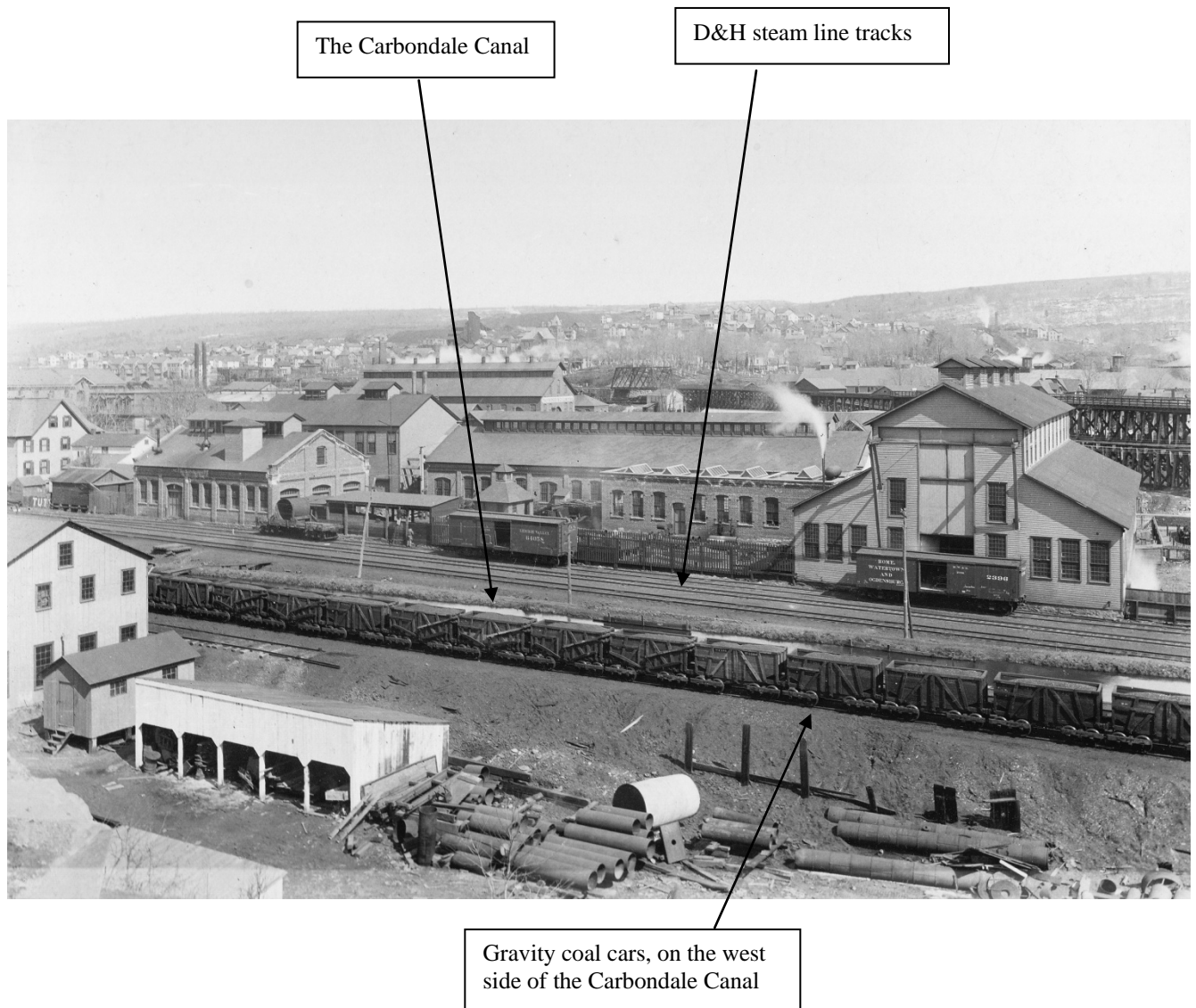
Carbondale City Hall
and Court House



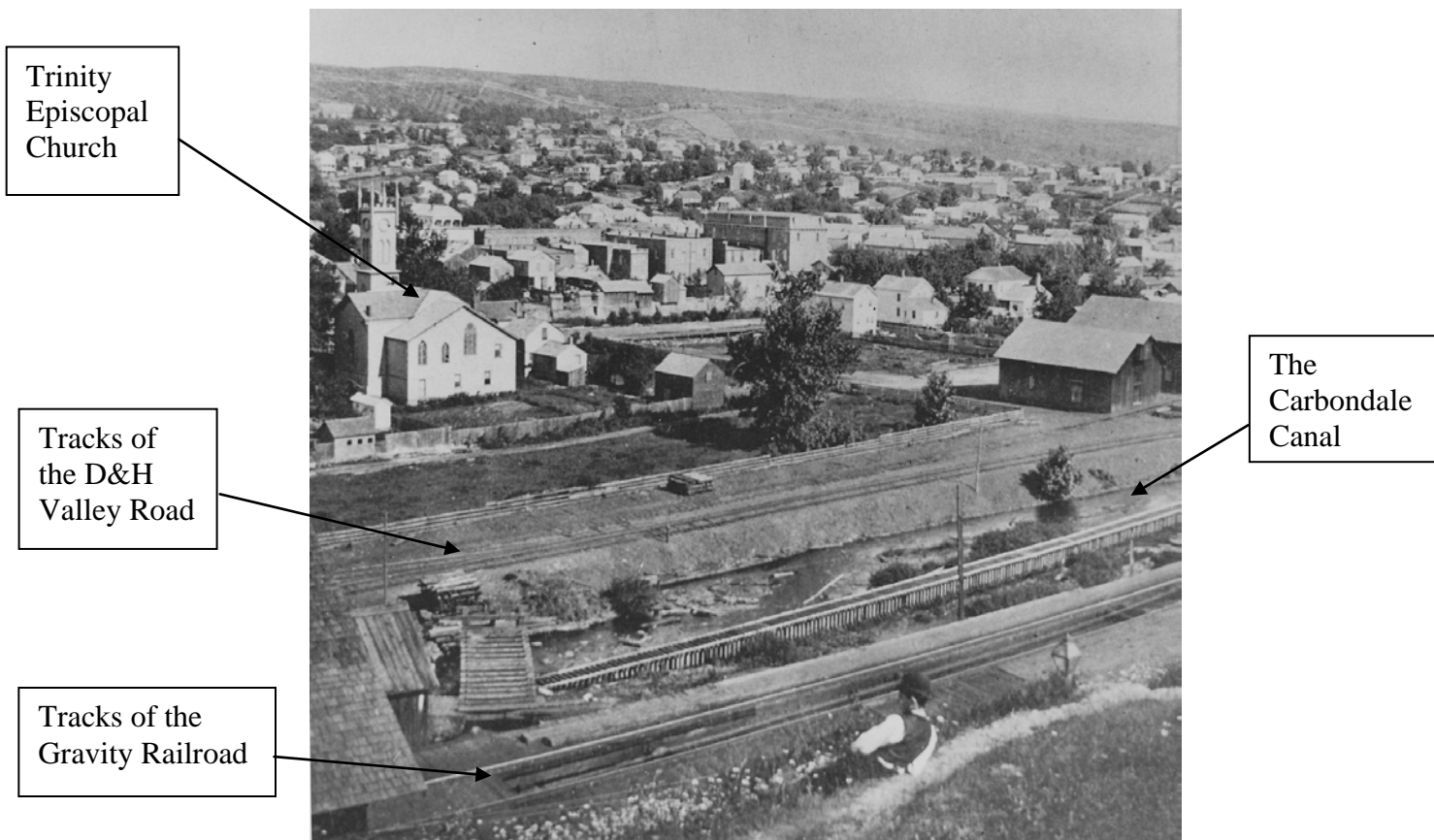
In the second of these views, the Carbondale Canal crosses and re-crosses the D&H Gravity Railroad tracks and the D&H stem line tracks (twice it passes under the "loaded" track on the Gravity Railroad, and twice it passes under the D&H steam locomotive line) before re-entering the Lackawanna River, in three different locations, in South Carbondale.



Here is another view of the Carbondale Canal. It can be seen just above the long row of Gravity coal cars in this photo, in the Gritman Collection of the Carbondale Historical Society.



Shown below is a photo, by Johnson, that was taken from the hill above Plane No. 28 engine house. In this photo, the Carbondale Canal is seen between the Gravity tracks and the steam-line tracks. Photo in the collection of the Carbondale Historical Society and Museum.



The Raceways that Fed the Carbondale Canal:

Raceway from Lackawanna River: In the view of the Carbondale Canal on page 76, the raceway to the west from the Lackawanna River is clearly shown. This raceway passes through the site where one of the Van Bergen buildings would be built, and then under Dundaff Street and the D&H locomotive track, before heading South, between the D&H locomotive tracks and the Gravity Railroad tracks. Also in this view, the end of the raceway to the Carbondale Canal from the Fallbrook Creek is shown.

Raceway from the Fall Brook: The second raceway that fed the Carbondale Canal is, remarkably, an appendage of the Fall Brook, which was dammed up below Fall Brook Falls. From that dam, a raceway, shown on the detail from D. G. Beers shown below, was structured to flow west of present-day Fallbrook Street and through Carbondale's West Side, passing through a pump house (on the west side of present-day Fallbrook Street, opposite the beginning of Farview Street) before it descended to the valley floor and passed under both the steam line track and the Gravity track before it merged with the Lackawanna River raceway before it went under the steam line track to surface between the steam line track and the Gravity Railroad track.

Dam on the Fall Brook, to direct water into the raceway for the Carbondale Canal through Carbondale's West Side

Present-day
Fallbrook
Street

CARBONDALE

Scale 20 Rods to the Inch.

Fall Brook
Creek, as it
descends
into
Carbondale

Raceway
from Fall
Brook Creek
through
Carbondale's
West Side

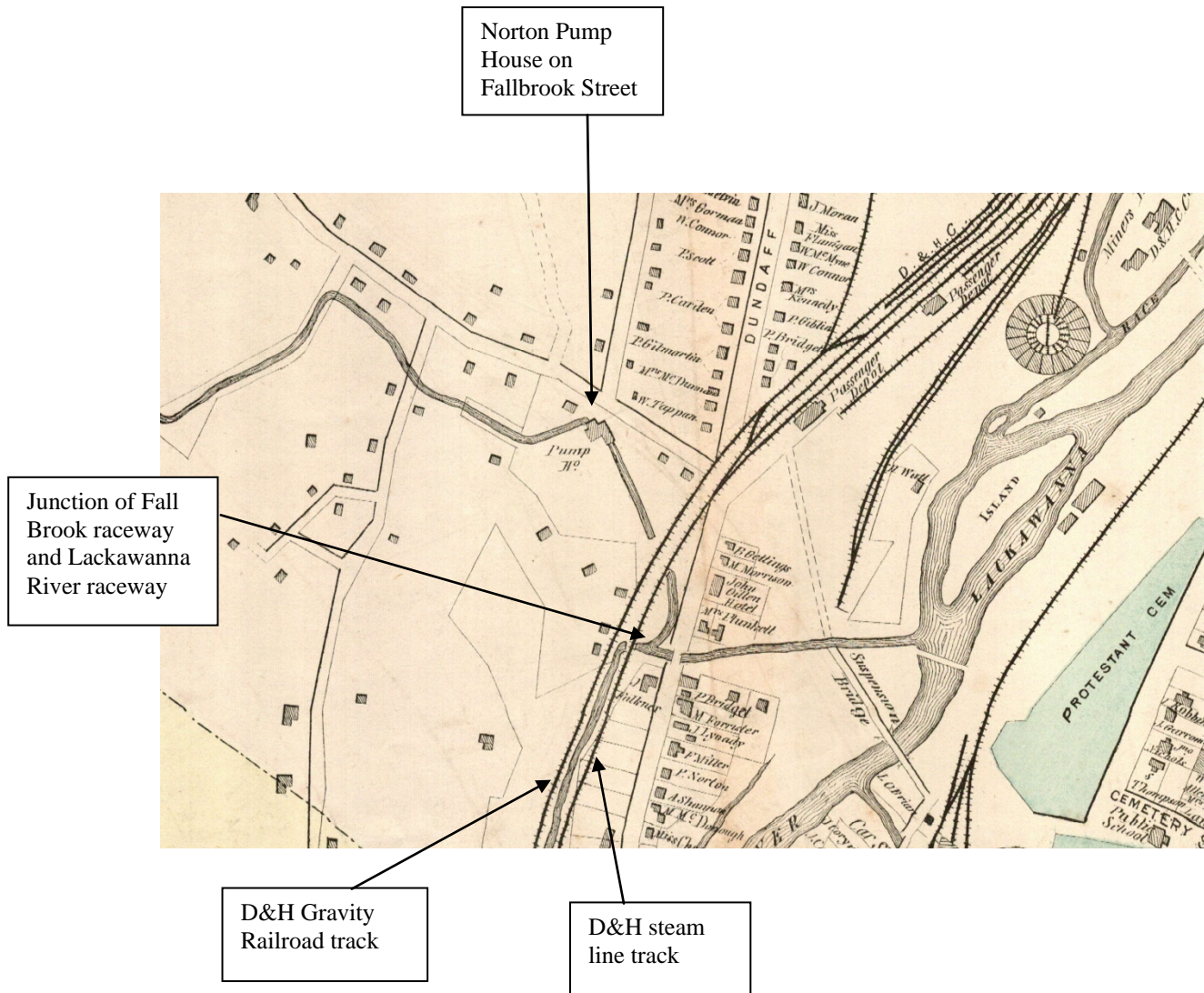
Present-day
Farview
Street

Norton
Pump
House

Present-day Hospital Street

This alley is called "the
Canal" by present-day
local residents

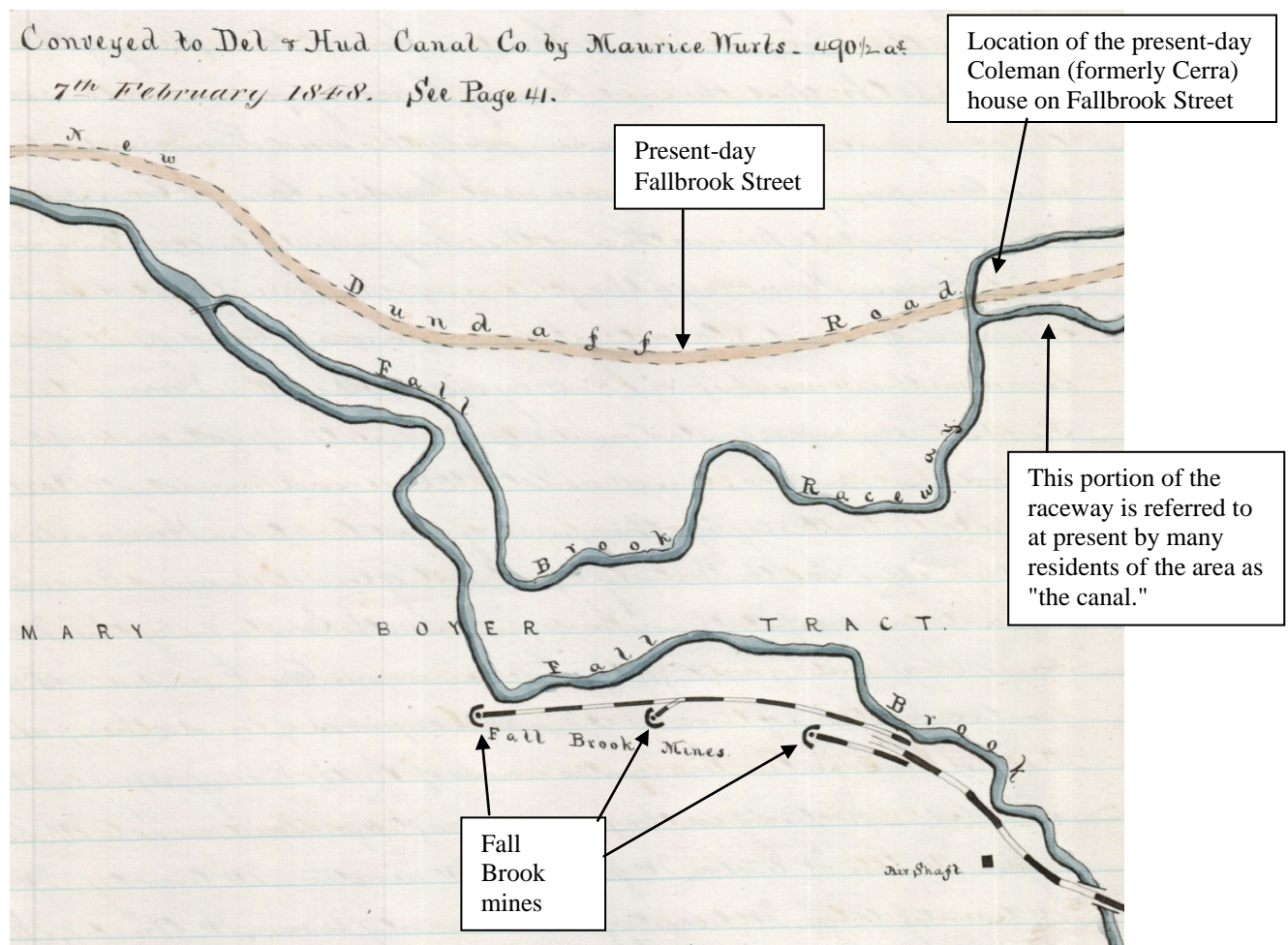
The raceway on the Fall Brook, through Carbondale's West Side came down to the west of Fallbrook Street and into/through a pump house and then down into the flats through the "alley" above Fallbrook Street. That alley is called "the canal" to this day by many residents of Carbondale's West Side. Here is a second look at the junction of the two raceways that fed the Carbondale Canal.



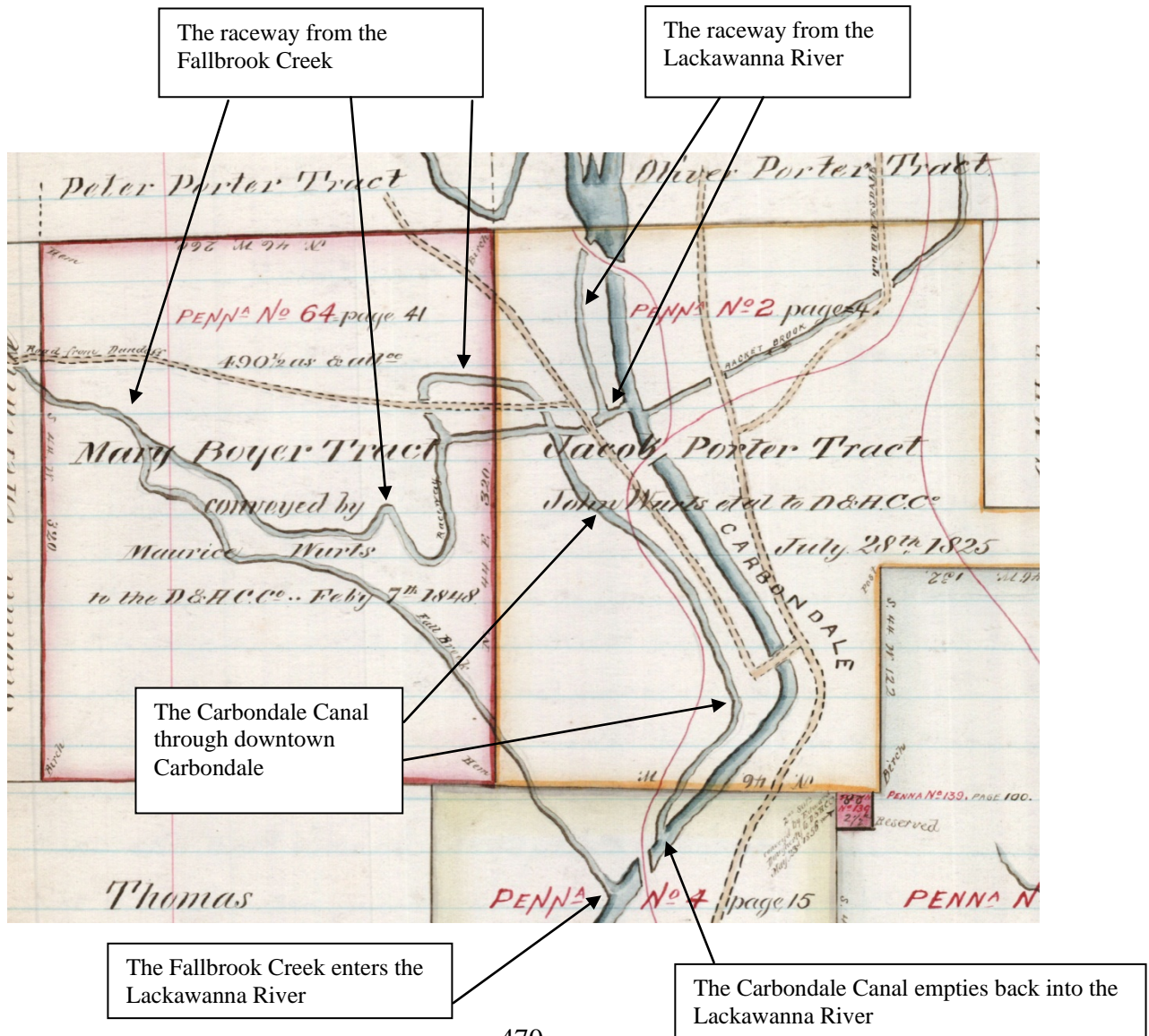
The pump house shown on the map given above is the Norton Pump House referred to in the article given below: **“AFFAIRS OF THE MINING WORLD. / . . .Norton Pump House Being Taken Away. / . . .** Another landmark is now being removed. This time it is the Norton pump house on Fallbrook street. It was abandoned about six months ago other means being now employed to take the water from the Delaware & Hudson mines, a service which it has

performed for scores of years [emphasis added]. Here again a question of economy led the company to construct large drains in the mines, running all of the water to No. 3 shaft where more powerful steam pumps, bring it to the surface and force it into the Lackawanna river. / The machinery in use at the pump house has been removed and men are now engaged in tearing away the building and trestling used to support the aqueduct that has furnished the power for so many years. Its disappearance will make a marked change in the appearance of the vicinity and may be followed by the widening of the roadway at that point another much needed improvement.” (*Carbondale Leader*, August 16, 1899, p. 5)

Initially the Fall Brook Raceway bifurcated at the point where it makes its ninety-degree turn at the pump house, with one branch of the raceway descending on the south side of Fallbrook Street and one branch of the raceway descending on the north side of Fallbrook Street, as can be seen on the map on page 43 in *D&H Deeds Luzerne* that is shown below. Note that the roadway that is identified on the map detail given below as “New Dundaff Street” is present-day Fallbrook Street.



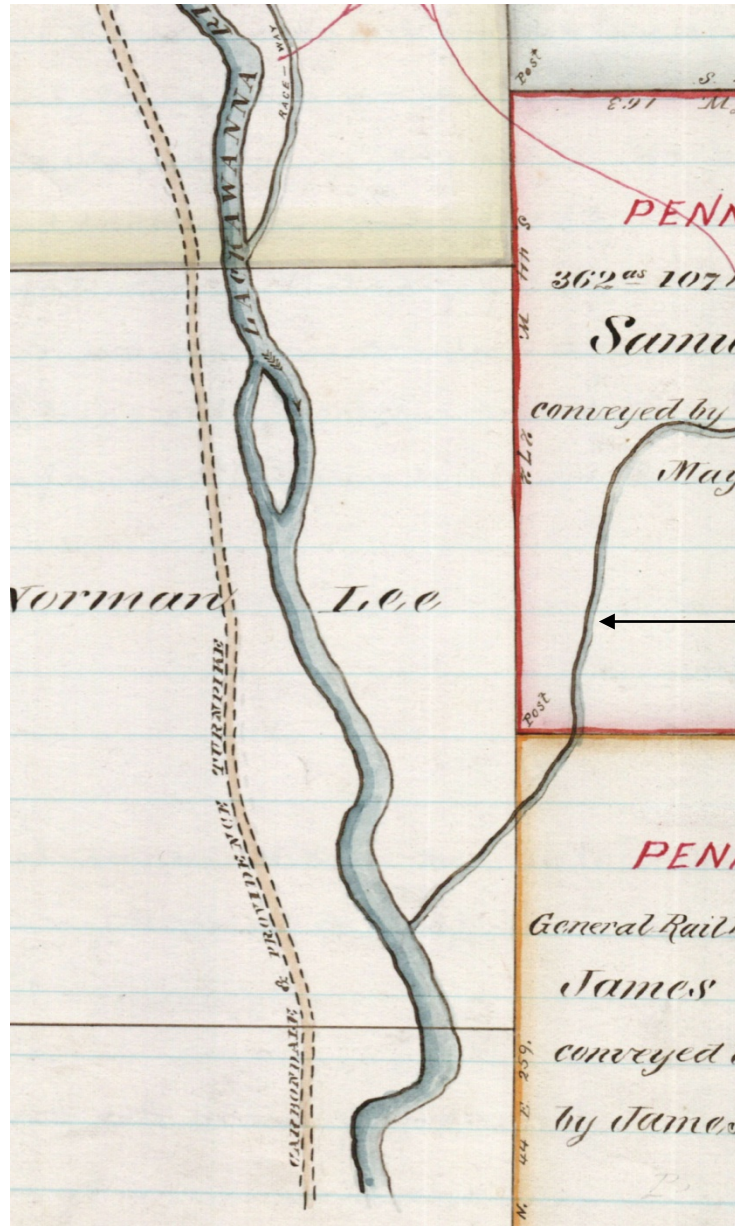
An excellent view of the entire Carbondale Canal as well as the raceways that fed that canal is presented on the map that illustrates the Release, dated May 9, 1862, between Peer Walsh and the Delaware and Hudson Canal Company. This release is on page 273 of the *D&H Deeds Luzerne*; the map is on page 274. Here are three views of that map:





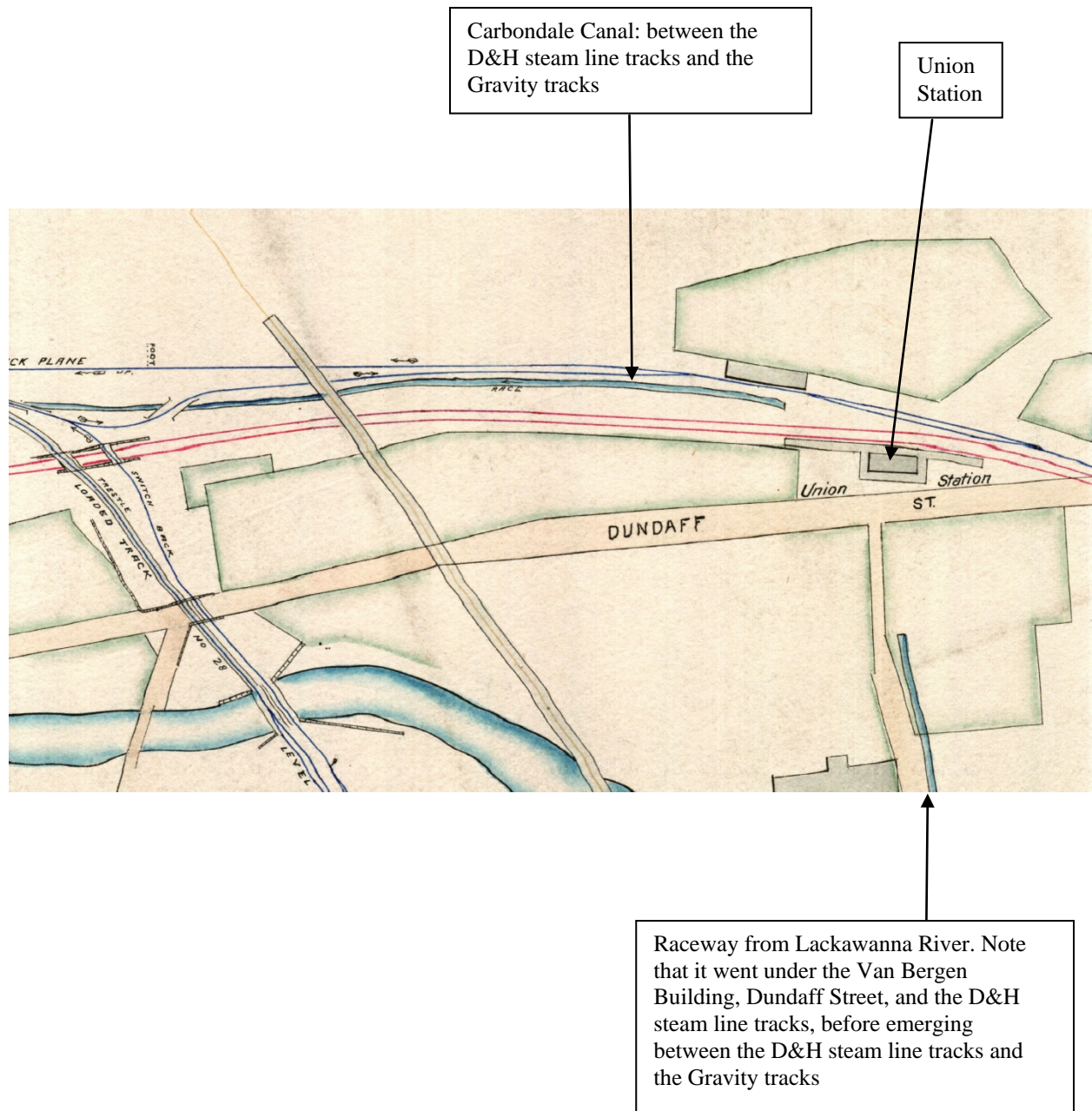
Raceway off the Lackawanna River in south Carbondale

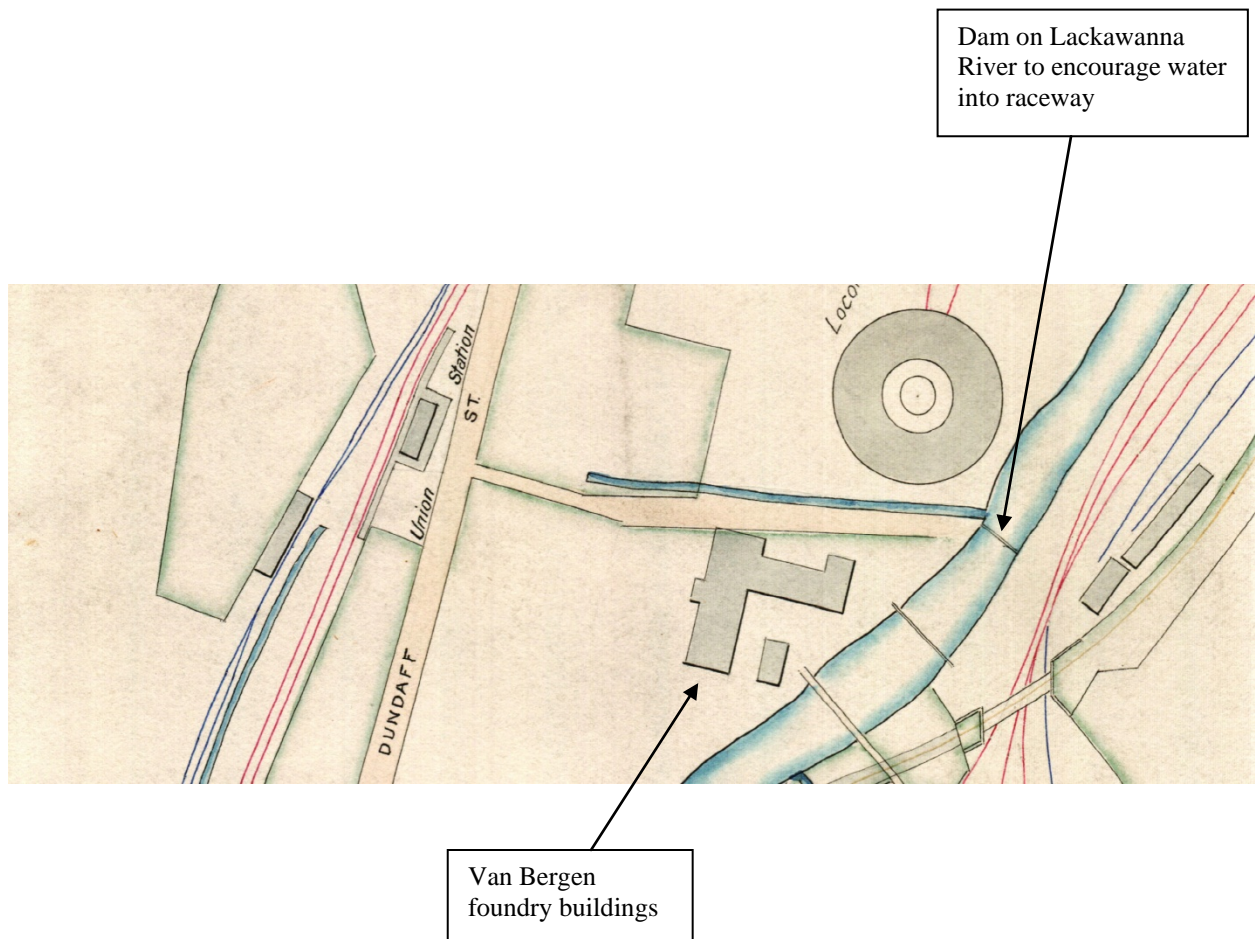
The Carbondale & Providence Turnpike through downtown Carbondale

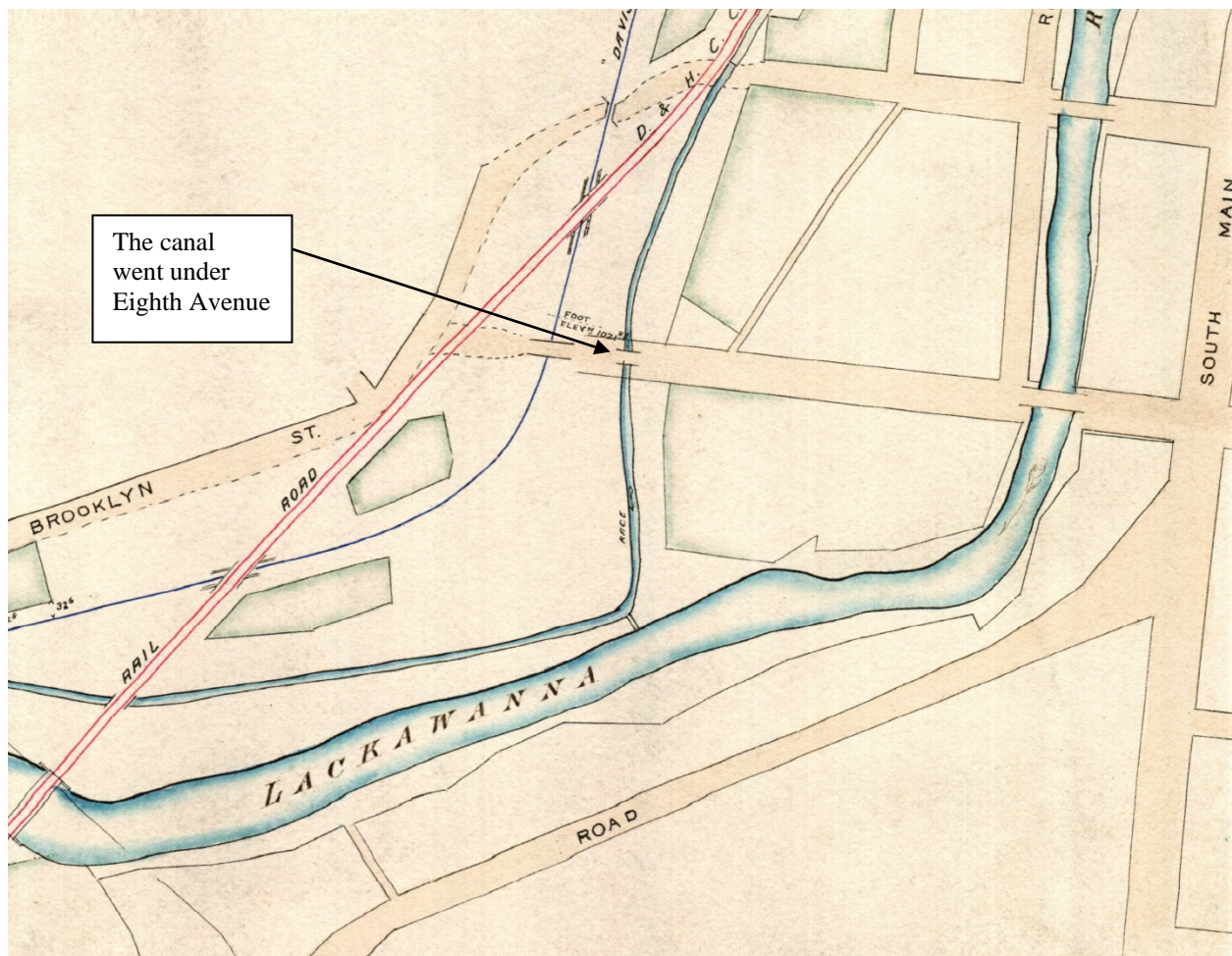


Powderly
Creek.

Four additional views of the Carbondale Canal from the 1895 Gravity Railroad map volume:







“Death by Drowning. / A young child of Mr. John Gallagy, a D. & H. engineer, was drowned on Sunday afternoon. His parents reside on Dundaff street, near the company’s race way, that conducts water from the Lackawanna to the water wheel at Davis’ head. The child, a son, about three years of age, was allowed to go out, about four o’clock to play. He was found three hours later at the foot of the schute opposite the Davis head, lifeless. He was borne by James Davis and other friends to the home of his grief stricken parents, but he could not be restored to life. The parents had been for some time searching for him.” (*Carbondale Advance*, May 25, 1878, p. 3)

In 1880, a mysterious death took place in the Carbondale Mining Canal.

476

Susquehanna Counties. His mysterious death occasioned great excitement among his friends, they believing that he was murdered and thrown into the canal by a band of desperadoes, who are committing depredations nightly in this section." (*The New York Times*, November 22, 1880)

The Carbondale Canal was still in existence in 1898, even though the water in the canal no longer powered water wheels in downtown Carbondale:

“SOME OLD LAND MARKS. / Relics of the Primitive Methods of ‘Rapid Transit,’ Up the Planes. / The suspension of the Gravity railroad recalls some of the things that have become antiquities in this pushing modern world. It is a well-known fact that the Gravity was built about seventy years ago. This was before the age of steam dawned upon these realms, and for nearly two generations the cars were pulled up [some of] the long inclined planes by water power. At Archbald at the foot of old plane C, stands an old water wheel. It was a contemporary of a generation that now sleeps on the eastern and western hills. That wheel was the machine that pulled the cars up the long incline of C plane. / A canal connecting with White Oak creek at its junction with the Lackawanna furnished the current that moved the wheel. It took half an hour for a single car to be pulled up the long plane. During the thirsty days of mid-summer when creek and river went dry the cars didn’t climb the plane, and the hands were off until a good shower came. The wheel still remains, but the canal was filled up and now forms the bed of the Ontario and Western railroad, but the aged wheel still remains./ The old waterwheel and the canal were the ghostly haunts of these ancient days. The troubled spirits walked by the untroubled stream of the canal and along the waters in the sluggish river, while the night owls hooted at them from the dense dark grove that once stood upon the treeless hillside of the present day. Many a shade from the hidden land there told his troubles to the frightened wayfarer from out the shadows cast by the midnight moon. / But the axe of the railroad builder has exercised [perhaps ‘exorcised’ was intended] the spirits and the wild shriek of the steam engine has frightened away the grim gaunt ghosts of the good old days. / Carbondale still has a canal that sent cars up Davis’ plane, [emphasis added] but the shades—if they ever existed there—have all withered and blown away.” (clipping from the *Scranton Truth*, dated Saturday, October 29, 1898, in one of the Gritman scrapbooks)

A break in the Carbondale Canal in March 1899 caused much damage in the River Street area of Carbondale:

“Water Causes Much Trouble / Shortly before five o’clock yesterday [March 5, 1899] morning the bank of the canal that runs parallel with the Delaware & Hudson tracks from union to city station burst at a point just above the Ontario & Western abutment letting the water rush down the railroad and flooding the cellars and yards of River street. / At the point where the break occurred the canal is about ten feet above the railroad and the bank is quite thick. A short time

ago a gravity coal car jumped the track from the bridge that crosses the canal at a point below and it is thought that rubbish floating down in the water became lodged against the car and backed the water up above its usual height. The heavy rain of Saturday night brought increased pressure to bear on it with the result that a ten-foot section gave way. / It was about eight o'clock before the flow of water could be stopped and the large force of men at work succeeded in clearing the track before the first train was due. The canal is fed by the river, the inlet being between the Van Bergen foundry and the lower D&H round house. By closing the gate there, most of the water was stopped. / Men were employed all day yesterday in repairing the bank as the water is used by the company as motive power at the pump house below the city near the red bridge and also runs the turbine that operates the machinery of the Weston Mill company. / . . . a miniature pond was formed on the low land to the rear of Trinity church and the Sunday school room of the edifice had two feet of water over the floor. The carpet, organ, library books and other furnishings were ruined." (*Carbondale Leader*, March 6, 1899, p. 5)

Now that we know where the water came from to power these wheels in downtown Carbondale, let's have a look at Plane No. 28.

WATERWHEELS ON PLANE NO. 28 BEFORE 1859:

When the Gravity Railroad opened in 1829, Plane No. 28 did not exist.

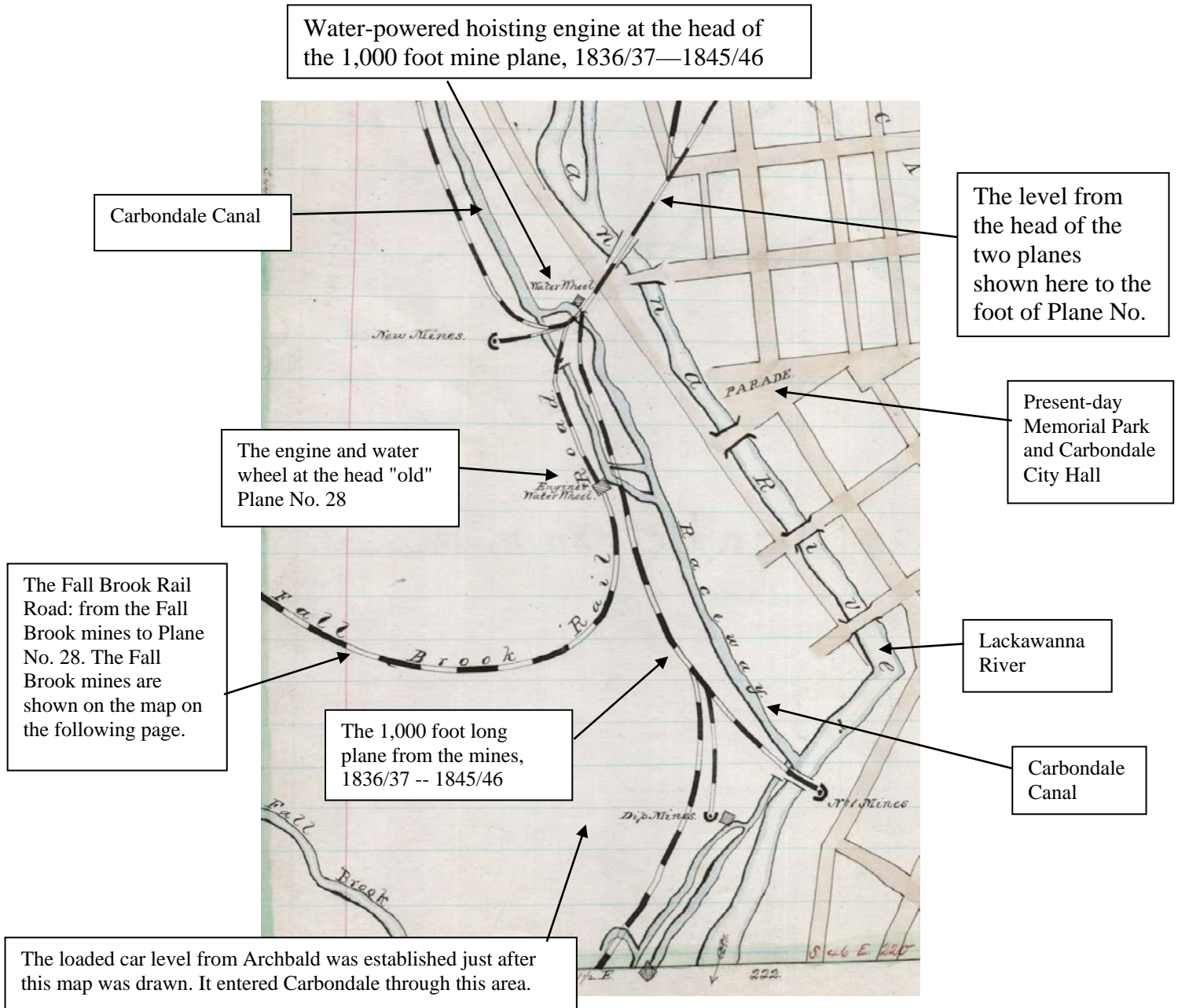
In the early drift mines, the coal was removed from the mines by using wheelbarrows. Lifting sweeps (hoisting devices actuated by a horse or a mule) were also used. When the mines went deeper into the coal beds, tracks were laid on which the coal cars were hauled to the surface by horses and mules.

At the mouth of the mine in Carbondale, there was a 300-foot long plane inclined plane, ascending 30 feet, from the mouth of the mine to a level. The coal cars were pulled up this plane by a horse. At the head of this 300-foot long plane, the cars entered upon a 2,000 foot long level, and were pulled by a horse to the foot of Plane No. 1. Here is what Torrey said about that plane in 1882:

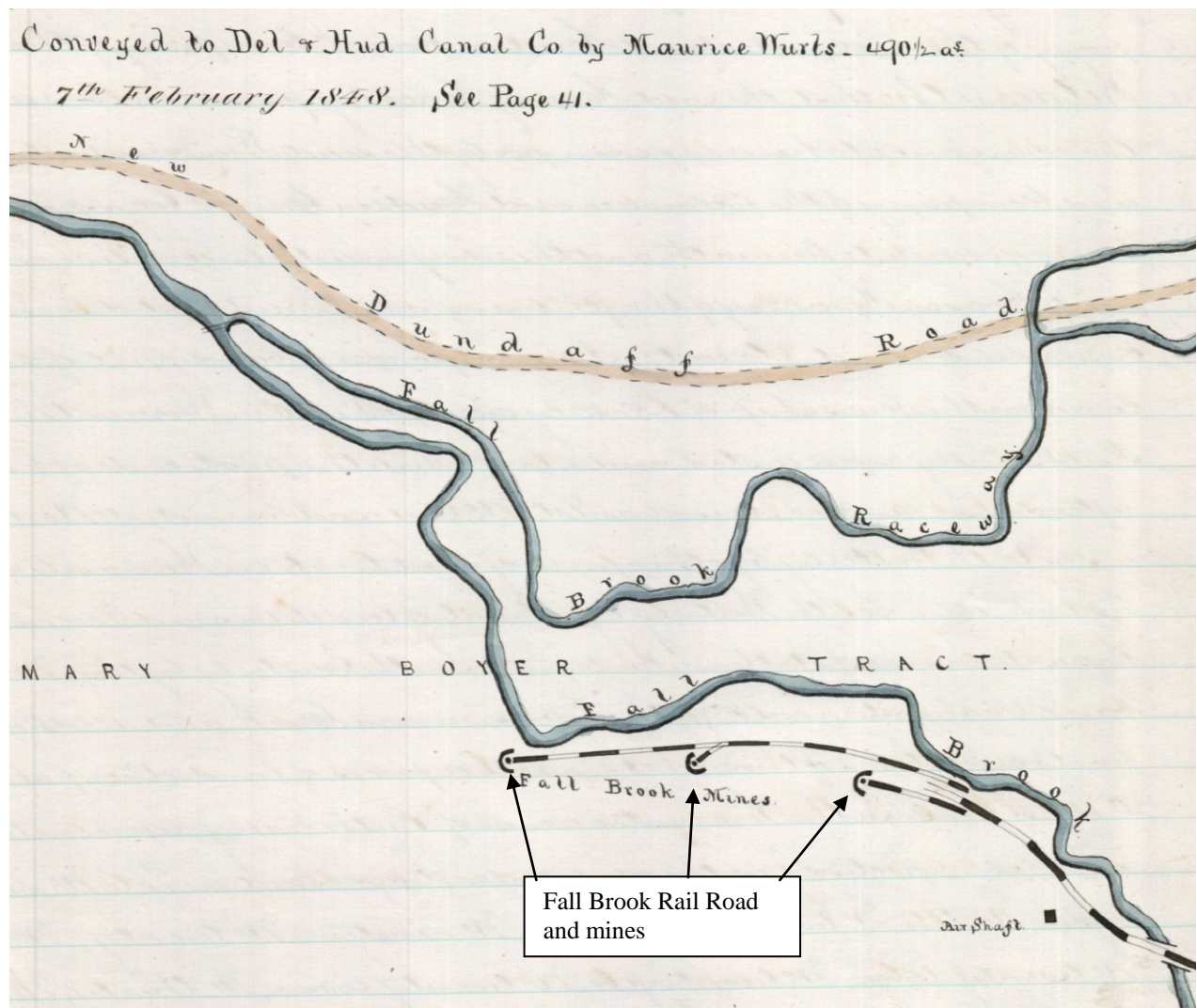
"Starting at the mouth of the mine at Carbondale, the railroad commenced with a short inclined plane 300 feet long, ascending 30 feet, (or 1 foot in 10,) which was operated by horse-power. From the head of this plane the grade was near the natural surface of the ground a distance of 2000 feet to the foot of steam plane No. 1, ascending in that distance 45 feet (or 1 foot in 44.) This grade was so heavy that is required one horse to each car carrying three tons of coal." (*Torrey*, 1882)

Beginning in 1836/37, the cars were pulled from the mines up a 1,000 foot long plane by a water-powered hoisting engine. From the head of that plane, the cars were pulled by horses to the foot of Plane No. 1. These procedures were followed up to 1845/46, when "old" Plane No. 28 was established and the plane from the mines, with its water-powered hoisting engine, was removed).

The 1,000 foot long plane from the mines, with its water-powered hoisting engine, are shown on the map detail given below from the map on p. 12 in *D&H Deeds Luzerne I*. This map illustrates the deed, pp. 1-6, dated July 28, 1825, between John Wurtz & others, Trustees, and The



he Fall Brook Rail Road ran between the Fall Brook mines and Plane No. 28. The mines are shown on the map given below from p. 43 of *D&H Deeds Luzerne I*:



D&H Coal shipments for 1837 reached a new high: 115,000 tons. Adding a water-powered hoisting engine to the 1,000 foot long mine plane in 1836/37 may well have made it possible to ship more coal in 1837 than previously.

"Old" Plane No. 28 (see the map on page 94) was established in 1845/46 and served until 1853, when the plane was redesigned. This 1845/46 plane made it possible to transport coal to the foot of Plane No. 1 from (1) the newly opened mines in the Carbondale area (the Powderly mine started operations in 1845; the Fall Brook mines opened in 1846), and (2) the mines in Archbald, the coal from which was now being shipped to Carbondale over the newly-established level (not shown on the map on page 94) from the top of the hill at Archbald to the Plane No. 28 area in Carbondale.

Powderly mine side note: Before the opening of the extension of the Gravity Railroad to Archbald in 1846, empty coal cars for the Powderly mine (which began operations in 1845) were let down Plane No. 28 and then pulled back to the Powderly mines by horses. Each horse drew four coal cars and a horse car on which he rode back. This we have learned from an undated newspaper article titled "The Celebrated Gravity Road" (probably published in the *Carbondale Leader* in the 1890s) in the archives of the Historical Society. Therein, we read:

"The Gravity extended only from Honesdale to Carbondale until 1846. It was then extended to Archbald. In order to get the light cars to Powderly mines before this [before the line was extended to Archbald] they were let down plane 28, which was then [1846] run by water, and pulled back to the mines by horses. Each horse drew four coal cars and a horse car on which he rode back."

After the line was extended to Archbald, the light cars for Powderly were no longer let down 28 and pulled back to the mine by horses. With the Blakely level in place from 1846 on, the empties for Powderly could have been delivered there from either the Blakely level or from the level for loaded cars from Archbald to Carbondale. The loaded coal cars from the Powderly mine were sent into downtown Carbondale and the foot of Plane No. 28 via the level for loaded cars from Archbald to Carbondale.

To move the loaded coal cars from the Powderly mines and the Fall Brook mines and from Archbald from the level ground at the foot of "old" Plane No. 28, the cars were pulled up this plane by an engine that was powered by a water wheel, with water from the Carbondale Canal. At the head of this plane, the loaded coal cars were moved onto a level, on which they were pulled by horses to the foot of Plane No. 1. This point is substantiated by William Johnson, who noted:

"Previous to 1853 there was a level extending from the head of the old No. 28 plane to the foot of No. 1. Across this the cars were pulled by horses. The head of No. 28 plane was then some feet lower than it now is and the foot of No. 1 somewhat higher. On the plot at the foot of Salem avenue was a fine spring to which people went from all sections for water. John W. Aitken, father of the present John Aitken, at one time made a pond there and put over a thousand trout in it, but the boys soon caught these."

"New" Plane No. 28 was established in 1853 and served until 1859, when Plane No. 28 was again redesigned.

In 1853, "old" Plane No. 28 was completely restructured, to become a component of "new" Plane No. 28. A new water wheel, with an engine powered by water from the Carbondale Canal, was installed at the new head of the old plane. This we have learned from William Johnson:

"The first water wheel in use on the old gravity [in Carbondale] was located near the head of the old No. 28 plane. At first [1846] it did its work very well but later [1853], when the business had largely increased, it was decided to divide this plane and another wheel was constructed at the new head of the old plane which stood near the present Mills & Baker property. This change was made in the year 1853, Charles P. Wurts was at that time superintendent of the company, he having come here in 1851. James Dickson was master mechanic and William Ball, then superintendent of machinery, had charge of the work of constructing the wheels."

In that same year, 1853, the decision was also made to establish two planes at the Plane No. 28 site. In addition to re-structured plane and waterwheel at the site of "old" Plane No. 28, a second plane, with an engine powered by two waterwheels with water from the Carbondale Canal, would also be built north of the re-structured plane and waterwheel at the site of "old" Plane No. 28.

The second plane, with two waterwheels, on "new" Plane No.28:

This second plane on Plane No. 28 was near where the D&H coal pockets were later built, which is the site where the buried water wheel and wheelpit were found in 1902. An overshot water wheel fifteen feet in diameter and ten feet abreast was established there, in a wheelpit, but a sufficient fall could not be obtained, so a second wheel, slightly smaller, was constructed there and geared to the first one. All this we learn from William Johnson:

"In 1853 when the change was made the head of the second plane was near where the present local coal pockets stand, midway between No. 28 and No. 1 planes. To pull the cars up this plane a water wheel was constructed at its foot, where the old wheel pit was recently discovered. This wheel was fifteen feet in diameter and ten feet abreast and was made of heavy oak and pine. It was run with an overshot current taken from the Lackawanna river. There was plenty of water but a sufficient fall could not be obtained so a second wheel, slightly smaller, was constructed and geared to the first one. There was more than enough water in the current to fill the buckets of the big wheel and the surplus was used to run the second one. In this way plenty of power was secured to whisk the cars up the plane at a lively rate."

By means of these two new planes that were established in 1853 (and which remained operational until 1859), loaded coal cars from (1) the mines in the Carbondale area (those south

of the Plane No. 28 site as well as those from the Powderly and the Fall Brook mines), and (2) the mines in Archbald were moved to the re-designed level from the heads of those planes to the foot of Plane No. 1. This newly designed and installed level was graded so that the loaded coal cars that were moved thereon moved by gravity to the foot of Plane No. 1, where they were inserted into the Gravity Railroad system and the coal shipped to market.

The third plane, with one waterwheel, 300 feet north of the second plane:

And, yet another waterwheel was established, about 300 feet north of the two waterwheels that were midway between No. 28 and No 1 planes. This, too, we have learned from William Johnson.

"The same stream was used to run a third wheel located about 300 feet north of the two mentioned. This was used to draw the coal cars up from the old mine, the opening to which may still be seen in the base of the west side bluff."

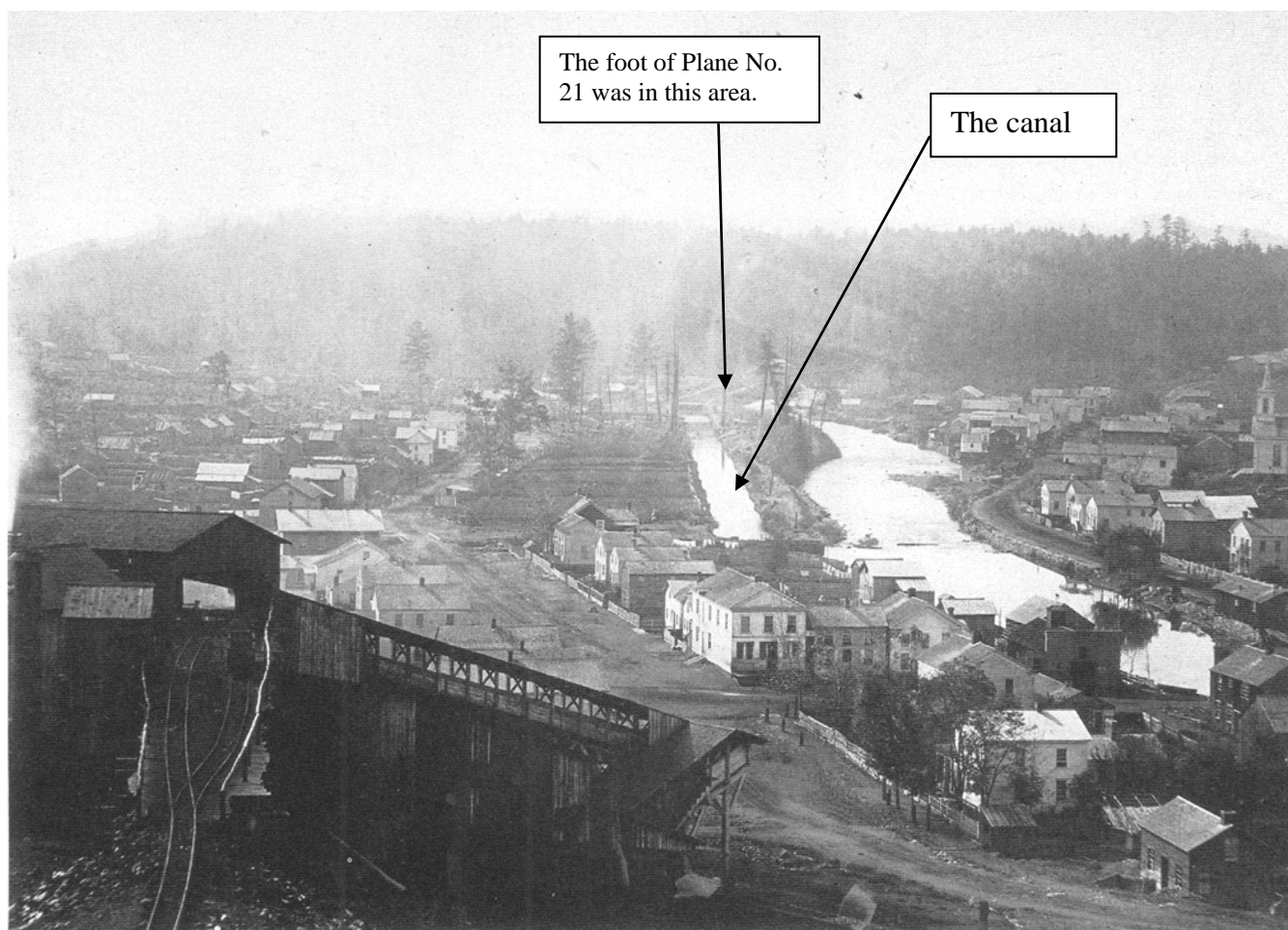
This "third wheel" is likely the wheel that Alexander Gillies, Sr. remembered when he wrote his recollection to the *Carbondale Leader* at the time that the buried waterwheel was found at the foot of Salem Avenue. He affirmed that the buried waterwheel was "undoubtedly the wheel that was used for some time in the early fifties [the 1850s] to draw the cars up the slope in what was called the 'new' mine that was located near that point."

WATERWHEEL ON PLANE NO. 21:

The third area of the Gravity Railroad where waterpower was used was in downtown Archbald, on Plane No. 21.

Plane No. 21, also known as C Plane, was the first of the south-bound planes between Archbald and Olyphant. When this plane was installed in 1859, the motive power on the plane was a waterwheel that was powered by a canal running from White Oak Run parallel to the Lackawanna River. In an article on the Gravity Railroad in Archbald that was published in the *Carbondale News* of January 10, 2001 (p. 7) we read: "The waterwheel at C Plane was powered by a canal which connected White Oak Creek to the Lackawanna River at a point where the river bends at the base of C Bush."

That canal is seen in the photograph of Archbald that is given below.



View of Archbald, reproduced here from page 31 Of Pulleys and Ropes and Gear, The Gravity Railroads of The Delaware and Hudson Canal Company and The Pennsylvania Coal Company by Philip Ruth.

The use of waterpower on Plane No. 21 was discontinued in 1865, at which time the canal was filled with earth, stone, and cinders, to become thereafter the roadbed of the New York, Ontario and Western Railway. From 1865 to the closing of the Gravity Railroad, the motive power on Plane 21 was a stationary steam engine at the head of the plane.

The North Branch Canal

The North Branch Division of the Pennsylvania Canal is mentioned often in discussions of anthracite coal in the nineteenth century. It is well to gather together in one place what we have learned about the North Branch Division of the Pennsylvania Canal.

This state-owned canal, built between 1828 and 1856, was 169 miles long, with 43 locks that raised the boats a total of 334 feet. (The southern end of the canal was 420 feet above the level of the sea; the northern end was 754 feet above sea level.) It ran along the North Branch of the Susquehanna River between southern New York (Elmira) and north-central Pennsylvania (Wilkes-Barre). The first segment of the canal, begun in 1828 and completed in 1831 to Nanticoke Falls, was 55 miles long. In 1834, a project called the Wyoming Extension increased the canal's length by 17 miles past Wilkes-Barre to Pittston. A final extension of 97 miles from Pittston to the New York state line at Athens (Chemung River, near Athens, Bradford County) was started in 1836 and finished in 1856. In 1837, William Foster, Pennsylvania's Chief Engineer of Public Works, Canals, and Railroads, while supervising construction of the canal, lived in Towanda with his brother, Stephen, the celebrated American composer.

At its southern end, the canal connected with the West Branch Canal and the Susquehanna Division Canal at Northumberland (Susquehanna River), while on the north it connected with the Junction Canal (a privately built and owned canal between Athens, PA and Elmira, NY; partly opened in 1854; completed 1858; 18 miles long with 11 locks; closed in 1871; sometimes called the Arnot Canal, after John Arnot of Elmira, its principal stockholder) and the New York canal system. The Junction Canal connected the North Branch Canal with the Chemung Canal, which connected with Seneca Lake, which connected with the Erie Canal. Boats using the Pennsylvania canal system could thus travel as far as Buffalo and Lake Champlain.

Salmon Lathrop was a contractor on the North Branch Canal in 1838.

Salmon Lathrop, the father of Charles E. Lathrop, president of the Carbondale Leader Publishing Company, was a railroad and canal contractor, who "in 1822 built three miles of the old Erie Canal in Herkimer County, N. Y., including the aqueduct across the Mohawk River at Little Falls. . . In 1838 he became a contractor on the North Branch Canal from Pittston to Towanda, which work occupied some years." (Biography of Charles E. Lathrop in *Portrait and Biographical Record of Lackawanna County Pennsylvania*, p. 181.

The ad titled "Canal letting" that is given below is from *Northern Pennsylvanian*, September 30, 1840, p. 3:

CANAL LETTING,
Canal Office, Tunkhan- }
hannock Sept 1, 1840. }

Sealed proposals will be received at the Canal Office in Tunkhannock until sunset of Thursday, the 22d day of October 1840, for completing Section No. 134 of the Tunkhannock line, North Branch Division of the Penn'a Canal. Plans and specifications of the work will be exhibited by the Engineer on the day of Letting.

THOMAS MYERS,
Superintendent.

Bryce R. Blair, working for his uncle, Frank Blair, was employed in the construction of the North Branch Canal at Tunkhannock in November 1852:

More about Bryce R. Blair:

Bryce R. Blair (born in Glasgow, Scotland on September 21, 1832, died in Carbondale, PA on February 11, 1916), upon his arrival in America in November, 1852, went to work for his uncle, Frank Blair, and was employed in the construction of the North Branch Canal at Tunkhannock. We will learn a great deal more about Bryce R. Blair in Volume XI in this series: *The Jefferson Branch of the Erie Railroad (Carbondale to Lanesboro)*. Bryce Blair was appointed in December, 1868, the Chief Engineer on the construction of the Jefferson Branch of the Erie Railroad from Carbondale to Lanesboro. That road was built in 20 months, and cost \$2,000,000.

North Branch, Pennsylvania, and Junction Canals:

“PENNSYLVANIA AND NEW-YORK INTERNAL IMPROVEMENTS. / Yesterday was an eventful day in our local, aye, our State history. The waters of the Chesapeake Bay and our great Lakes are united, and henceforth the internal commerce of our State [New York] with Pennsylvania, through the medium of the Junction Canal, will increase to an extent that will astonish our brethren along the line of the Erie Canal, who have so long opposed our connection with Pennsylvania. / The first boat through the North Branch, Pennsylvania and Junction Canals arrived here yesterday, and its arrival was greeted by our citizens with every demonstration of joy. The Tonawanda under the command of Capt. Abraham May, loaded with fifty-six tuns of Anthracite Coal, was safely moored in the Chemung Canal basin amid the cheers of many hundreds of our citizens, who had congregated for the purpose. / Yesterday morning information was brought to the village that the Tonawanda was on the way, and soon would be here. Before noon she reached Arnot’s Mills, about one mile east of us where she stopped. As soon as it could be brought about, a large body of citizens, preceded by Wisner’s Band, and Col. Terwillegar’s field piece, marched to the boat to bid her welcome. / As many as could get on board, when she started for her destination, [sic; portion of sentence missing] Arrived at the lock which reunites the waters of the Chemung with the Junction Canal, a brief, pertinent and eloquent speech was made by Col. Hathaway, welcoming the Pennsylvania Captain, boat and cargo, and congratulating this community on the consummation of this long looked for event, so important to the interests of our growing and enterprising village. / It is now more than twenty-five years since the commencement of the North Branch Canal. Difficulties have beset its progress during this whole period, until Gov. Bigler was placed in the executive chair. Appreciating the vast importance of a connection with the New-York canals, that dignitary consulted Mr. John Arnot and others of this State, who gave him a pledge that the Junction Canal should be completed within a given time. On receiving this assurance, the Governor took active measures to complete the North Branch Canal, and recommended to the Legislature and appropriation for that purpose. Through his vigorous perseverance the bill was passed, and the work was immediately recommenced, and is now finished. / The boat which has just arrived, and which has been greeted with so much enthusiasm, left the Pittston mines, Pa., on Tuesday last. She was delayed two days on her trip, and reached this place on Monday morning—occupying about four days time. Other boats are now on the way; and if the pleasant weather holds, a pretty good quantity

of coal will reach here this Fall. This coal is of superior quality, and is considered the best in the State of Pennsylvania. / The Junction Canal, which unites the New-York Canals with those of Pennsylvania, is eighteen miles long, and was commenced in 1853. Its cost was \$400,000, one fourth of which was furnished by our enterprising citizen, John Arnot, esq., to whose energy, perseverance and means, more than any other cause our community and State are indebted for this link of improvement, by which we have a continuous boat navigation from the great Western lakes to Chesapeake Bay. All honor to the men who have achieved this important enterprise.” (*Carbondale Transcript & Lackawanna Journal*, November 28, 1856, p. 2)

The North Branch Canal opened in 1858:

“**Opening of the N. Branch Canal.** / This enterprise has so long been on the *eve* of completion that we feared morning would never come; but it has come, bright and auspicious. / The sale of the canal was the only thing that could save it, and now that it has passed into the hands of a new company, the names at the head of affairs inspire the utmost confidence of success: for the energy and vigor with which they have prosecuted the work, the company deserve the greatest credit; they have had great hindrances, and been at great additional expense, but to-day we rejoice in the consummation of the enterprise. / Last week the water was let into the North Branch Canal, at the Horse Race Dam, and Saturday reached Pittston, and the President of the Company announces plenty of water thro’ from Elmira to Pittston; if no brakes occur from unforeseen causes, the Coal dealers in this region may rely on this avenue of transportation to an inviting market northward, during the rest of the season. / From this advertisement we learn that they have fixed their tolls at *thirty-five cents* per ton of 2,000 pounds, from Pittston to State Line [94 miles], against fifty-six cents, the charge last year: this evinces a most commendable disposition to liberality. / Since the above was in type we learn that a fleet consisting of twenty-seven New York Boats, have arrived in the canal near here. We have not ascertained particulars, but the fact points to a new era in the history of the North Branch.—*Pittston Gazette*.” (*Advance*, July 24, 1858, p. 2)

Change of name for the North Branch Canal Company:

“The North Branch Canal Company has been authorized to change its name to the Pennsylvania and New York Canal and Railroad Company, and to construct a railroad along or upon the towing-path or berme bank of its canal. / The work of extending the Chenango Canal from Binghamton down the Susquehanna to the Pennsylvania line, there to intersect the aforesaid canal, is rapidly progressing.—*Honesdale Republic*.” (*Carbondale Advance*, October 7, 1865, p. 2)

Portion of North Branch Canal sold to Lehigh Valley Railroad:

The North Branch Canal from Northampton Street in Wilkes-Barre to the state line was sold to the North Branch Canal Company. This section of the canal was wrecked by the great spring flood of 1864. In 1867, the North Branch Canal Company then sold this section to the Lehigh Valley Railroad. The railroad laid tracks along portions of the canal towpath and operated both until 1872, when it was authorized by the state legislature to close the canal.

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